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ABSTRACT

Seventy-one 1963-75 Research & Development (R&D) reports were reviewed for purposes of providing a rural R&D synthesis useful to Comprehensive Employment and Training Act (CETA) planners and identifying labor market analysis techniques/implications successful rural programmatic initiations, data gaps, and broad policy issues. Conclusions and suggestions re: future research objectives were made relative to the supply and demand for rural labor and the design/experience of rural employment and training programs. In general, the literature suggested: rural labor market problems were unique in origin, requiring population specific program responses; the role of poverty related economic development problems had been explored, but the causes of varying rates of economic development in rural areas had not been clearly documented nor had the effectiveness of encouraging economic development via special efforts and geographic specific orientations been explored; rural labor force members behaved differently than their urban counterparts, but the reasons for the differences remained unexplained; the success of education/training programs was related to client motivation, and the most successful programs were those offering a variety of supportive services in addition to basic education; low wage rates influenced client motivation when welfare services were comparable; there was a rural youth emphasis; R&D literature was more oriented toward the research than the practitioner community. (JC)

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Papers in Employment and Training Studies

# Rural Oriented R&D Projects Supported by ETA/USDL: A Review and Synthesis

by

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# RURAL ORIENTED R&D PROJECTS SUPPORTED BY ETA/USDL:

# A REVIEW AND SYNTHESIS

by

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This report was prepared for the Office of Research and Development, Employment and Training Administration, U.S. Department of Labor, under Grant No. 21-41-76-12. The grant was to the Institute for Manpower Studies, Oregon State University, with Gary W. Sorenson director and principal investigator of the project. All observations, conclusions and recommendations represented here are those of the authors and the principal investigator, and may, or may not, reflect the views of the Employment and Training Administration.

## Foreword

This document summarizes the findings presented in seventy-one research reports and other publications which have been funded by the Office of Research and Development (ORD), Employment and Training Administration, U.S. Department of Labor. It is the product of a contract between ORD and the Institute for Manpower Studies, Oregon State University. The contract provided support for a review and summary of its previously funded research on employment and training problems and programs in rural areas of the United States. The purpose of the review was to extract general lessons and program guidelines from the large number of reports on previous projects and to make them available in a single document.

This document is intended primarily for use by researchers, planners and operators of employment and training programs in rural areas currently funded by the Comprehensive Employment and Training Act (CETA) and other legislation. It provides suggestions and techniques for carrying out planning and program operation responsibilities. Chapters on supply and demand for labor in rural labor markets identify a large number of factors which affect both the supply of and demand for labor services and which should be reflected in labor market analysis, needs assessment, and other planning tasks. Unfortunately, the documents themselves do not provide any models to guide such incorporation. A separate chapter examines experimental programs which tested public employment and youth program design and performance.

A second objective of the study was to identify potential research opportunities which merit ORD's attention. A separate section of each chapter provides suggestions for future research, concentrating on research that will be of immediate benefit to employment and training program planners and operators.

The documents surveyed for this report were identified by an earlier project undertaken for ORD by Gordon Gayer. Gayer produced an annotated bibliography of all documents previously funded by ORD which dealt with rural areas. That bibliography is entitled ORD's Rural Work, and is available from ORD.

The authors of this report read all of the documents listed by Gayer as pertaining to labor supply and demand and to particular program areas (public employment, youth, migrants, Native Americans, and women) which ORD was able

to provide. The documents reviewed are listed in the bibliography of this report. Originally, the authors intended to focus on lessons that had been learned from the research and that could be applied to program planning and operation. It was found that few of the documents were specifically oriented toward operational audiences. As a result, most of the information in this report is incorporated in chapters on labor supply and demand; much less appears in the chapter on program planning and operation.

Some documents on Gayer's list appear to have no immediate relevance to program planners and administrators. The contents of those documents are not summarized in this report. The need to focus future ORD-funded research on the development of information and guidelines directly applicable to program planning and administration is discussed in the text of this report.

A detailed table of contents is provided so that the reader can easily identify and find sections of particular interest and relevance. Use of the table of contents in this manner will make this document a handy reference for continuing use during annual program planning and implementation cycles.

The bibliography cites all of the documents surveyed in the process of preparing this report and contains information necessary for ordering copies. The reader is encouraged to use the bibliography to identify documents of particular interest.

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I

# INTRODUCTION

## Reviewing ORD-Sponsored Research

This report is based on a review of seventy-one documents which describe the results of research sponsored by the Office of Research and Development, Employment and Training Administration, U.S. Department of Labor (ORD). The one element which unifies all the surveyed documents is ORD sponsorship. Their topics, focus, levels of analysis, and usefulness vary widely. It is the purpose of the present review to organize the abundance of information contained in the other documents into a format that makes it readily accessible to, and usable by, employment and training professionals.

The major topics covered in this report appear in separate chapters. This chapter reviews various definitions of "rural" which are implied in the literature. Chapter II summarizes extensive information on the factors which affect the demand for labor in rural areas; it also contains a discussion of techniques for forecasting labor demand. Chapter III provides parallel information on the supply of labor in rural areas, discussing both the factors which affect supply and techniques for forecasting. Chapter IV reviews the results of extensive research and development projects which designed, implemented and evaluated a public employment program in Vermont and a series of youth programs in the Midwest. Each of the last three chapters contains a set of suggestions for future research which should be of use to those preparing research proposals and to ORD staff in evaluating those proposals. Each chapter also contains a section which summarizes the lessons and guidelines which seem to be of particular importance to program planners and administrators; these sections are intended to facilitate the use of the document by practitioners.

## The Definition of "Rural"

### Multiplicity of Definitions

A large number of the documents survyed for this report, written to examine problems of rural areas, stress the difficulties encountered in defining "rural". Confusion begins with the multitude of official definitions by the U.S. govern-

ment. The Bureau of the Census defines rural areas as those with populations of less than 2,500. The Department of Labor defines them as counties where a majority of the people live in places of less than 2,500 population. The Rural Development Act (RDA) of 1972 for most purposes defined as rural any areas outside a city or town of more than ten thousand inhabitants. But for allocating business loans and grants, RDA defined rural any area outside cities of fifty thousand population or more and their immediately adjacent urbanized areas with population densities of more than a hundred persons per square mile.

Defining "rural" by population size is inadequate for purposes of designing policies and programs because individuals in all areas with small populations do not share the same problems. The definitional problem remains. Four categories of rural residents are now commonly delineated: farm, rural nonfarm, small town, and rural-urban fringe. The first two are defined by the U.S. census. The third offers no such precision, and there is no generally accepted definition of a small town. In some literature the small town is limited to a center ranging in size from 250 to approximately 2,500, but others use the terms for places with 10,000 inhabitants.

The rural-urban fringe has been created by the spread of metropolitan centers. "Rural open country has been transformed into urban territory through annexation and new incorporation. At the edge of this urban expansion is a mixed area of both rural and urban characteristics; this has been termed the 'rural-urban fringe.'" Today, two-thirds of all people in rural areas live within one hour's drive of a city of 25,000 or more, and many of these people have no connection whatsoever with agriculture. They are part of the urban labor market. "It is difficult to determine then, by any definition, what constitutes a 'fringe' and what constitutes other 'rural nonfarm' areas." (31:A-1; 5:3-4)

The documents surveyed for this report were all classified for ORD as dealing with research on rural labor markets. Although the documents do not provide a common definition of rural and do not all focus on identical areas, this document will treat them all as studies of rural areas unless explicitly stated otherwise. "Rural" is the unifying focus of this document. The findings reported are meant to apply to rural areas, without further defining the term.

## The Need for "Rural" Programs

"Although the terms are often used interchangeably, the farm population or work force is a very small proportion of what is called the rural work force; the rural nonfarm category is much larger and has grown by enough in every census decade since 1910 to offset the decline in the farm population and keep the rural population (census definition) constant at about fifty million." (27:15) The 1970 census indicated that 26.6 percent of the total U.S. population lived in rural areas. (27:18) Given both the percentage of the total population and the absolute number of individuals involved, concern for defining and seeking solutions to the special employment problems of people in these areas is clearly justified.

The need for attention to the problems of rural areas is further demonstrated by the heavy incidence of poverty in these areas. "In 1965, ...41 percent of all the poor in the United States lived in rural areas. Five years later 46 percent of the poor families lived in nonmetropolitan areas, and of these, 68 percent were classified by the Census as rural." (60:8) This poverty is related to special problems and characteristics of rural areas and their residents which are discussed in the following chapters on rural labor supply and demand.

## Rural Similarities in Various Regions

Some of the documents reviewed for this report were concerned with specific geographic areas of the United States. The regional pictures they present do not differ from the more general picture. In the Southeastern states, agricultural employment has declined significantly, and although low wage industrial employment has become available in rural areas in the labor-intensive apparel and food processing industries that employ a large proportion of unskilled workers, migration to urban areas is necessary for those seeking higher wage employment. (55:3-5)

Studies of the Southwest reviewed here have focused on particular minority groups in the areas: the Spanish-surnamed and Native Americans. The former group was found to be characterized by the same rural-to-urban migration that is occurring in other rural areas, caused by the same impetus--the lack of good employment opportunities in rural areas. (5, 35 and 37) Native Americans are

found to have unique and diverse cultures as well as problems, but also to be constrained to migrate to urban areas in order to find employment. Like other rural-to-urban migrants, Native Americans often return to rural areas after brief experiences in urban centers, but they differ from other such migrants in that they tend to make the move back and forth several times during their lives. (6 and 58)

## The Rural/Regional "Dichotomy"

One of the original premises of this project was that the review of such a large body of literature dealing with rural manpower would provide information that would clarify the differences between "rural" and "regional" program areas. The assumption was that programs particularly suited for rural areas could be identified, and that they would differ from programs suited to the needs of regions incorporating both rural and urban labor markets. All of the literature surveyed argues strongly against this assumption.

### Regional Implications of Migration

Although the documents surveyed emphasize the need for and possibility of increasing employment opportunities in rural areas, most conclude that, to some extent, the solution of existing rural manpower problems lies in the migration of many individuals from labor surplus, stagnant rural areas to urban and growing rural centers. One implication is that rural labor market problems are also regional labor market problems; rural problems require regional solutions. Many rural residents (particularly youth but also members of other groups with significant numbers of unemployed) must be prepared to enter unfamiliar urban labor markets. This suggests that rural manpower programs, in addition to planning and providing for rural growth, should: 1) provide skills in demand in urban areas; 2) prepare individuals for life in urban settings by familiarizing them with the different institutions and norms encountered in those settings; and 3) perhaps actually promote migration through the provision of financial and other assistance. The literature surveyed indicates that such program activities have been avoided by rural manpower planners and program operators because they are politically unfeasible. Rural businessmen, politicians, and

people in general view programs which suggest the possiblity of migration as inducements to the further decline of their local economies. (6,10,31,35 and 38)

The documented interrelationship between rural and urban labor markets further suggests the need to involve urban program planners and operators in rural program design so that the rural-to-urban transition can be facilitated. Communication and joint planning are necessary. The documents surveyed here generally do not suggest how such joint efforts might be structured or facilitated; the exception is the material on regional growth centers discussed below in the sections on labor demand and on youth programs.

The Developmental Alternative

One alternative to programs designed to facilitate successful migration of the surplus rural labor force to urban and growing rural centers is the stimulation of the economic development and growth of the local areas. This alternative is preferred by local political and economic leaders. The goal is to generate sufficient demand to utilize the available labor supply and to overcome local economic stagnation. This alternative is also clearly regional, not simply local, in its implications. The economic stagnation of small rural towns documented in these studies has resulted from improved transportation systems which have drawn business to regional growth centers, away from the vast majority of rural small towns. (34) Reversing this trend would require the wider distribution of development of manufacturing and retail enterprises throughout rural areas.

The documents discuss the historical trends of economic growth and industrialization in small rural towns and suggest broad programmatic responses. (7, 27,34, and 64) Program guidelines for current manpower practitioners are not provided, however, and the reports of past results are not overly encouraging. In those areas of the rural South which have attracted investment in manufacturing plants and experienced some increased nonfarm employment, the increase has not been sufficient to provide jobs for the minority black population. (55) In general, the literature does not outline regional development programs which can be implemented to solve the problems of rural labor markets.

## Summary

Given the difficulty of finding agreement on the definition of "rural", it is apparent that nonurban areas have particular problems of unemployment and poverty. These problems merit extensive research that can serve to guide the design of programs to deal with those problems. The remainder of this document will examine past research for lessons learned and suggest future research that will expand program capabilities.

II

# THE DEMAND FOR RURAL LABOR

## Factors Influencing Demand

### Introduction

Any study of factors affecting the demand for labor in rural areas should begin with a look at who demands labor and for what purposes. Broadly speaking, firms demand labor to use in the production of goods and services. Inputs (both labor and nonlabor) are combined into the production process to maximize profits. Maximum profits are obtained by maximizing the difference between revenue and cost of production. The demand for labor and other inputs is a derived demand, since inputs are demanded to produce other things, not as an end in themselves.

The demand for labor in rural areas thus depends on:

1. The level of demand for the products of firms producing in rural areas;
2. The number and size of firms who find it relatively more attractive (profitable) to locate in rural rather than urban areas; and
3. The profitability to these firms of employing labor resources relative to other inputs which are technologically viable substitutes.

These three factors can be viewed as broad determinants of demand for rural manpower and other factors in turn affect these. The sections that follow identify and analyze specific factors which have been observed in ORD sponsored research to affect the demand for labor in rural areas.

### Farm Mechanization

One of the most drastic shifts in the demand for labor in the U.S. has been the dramatic decline in the number of persons required on the farm. The proportion of farm residents to the total population declined from about twenty-five percent in 1940 to about five percent in 1970, and the farm population declined from 30.5 million to 10.3 million during this period. (27:21) This shift has occurred because it has been profitable for farmers to substitute increasing amounts of machine power for human labor as technological breakthroughs in agri-

culture occurred. The result of this substitution has been a tremendous increase in the productivity of workers remaining on farms, a decline in the number of farms due to increases in the economic size of farms as a result of mechanization, and the displacement of many workers who previously owned or worked on farms. Between 1947 and 1969 farm output per man-hour increased by 260 percent, while nonfarm output per man-hour increased by only eighty-two percent. Mechanization and consolidation of farms reduced the number from about six million in 1947 to nearly three million in 1970. These developments have caused some significant changes in rural employment patterns by transforming large numbers of farms to agricultural workers, reducing the total number of farm laborers, and blurring the distinction between farm and nonfarm workers. (27:21-23)

The ultimate result of increased farm mechanization has been a decline in the demand for rural workers. In time, many displaced workers move to urban areas to find jobs but many others remain and live on low incomes. Even though the farm population decreased between 1960 and 1970, the total rural population remained at approximately the same level. (27:21) In many cases persons displaced from agricultural work have difficulty finding other employment because of inadequate training, education, and experience in nonagricultural jobs. Marshall's analysis suggests that more than eighty percent of black males who left southern agriculture during the 1960s had less than an effective seventh grade education (white equivalent) and over half had less than four years. (27:29)

Estimates of future demand for farm workers indicate a continued decline in employment opportunities, although the absolute number of persons leaving farming will be much less than in the past because there are so many fewer persons now on farms. A North Star Research Institute study on rural youth indicates that for the nation as a whole, only one boy in ten now living on farms can expect to make an adequate living in agriculture and that agricultural employment in the 1980s will be half the 1960 figure. (31:25) The basic economic question is whether nonagricultural job opportunities can be provided for rural youth in or near the rural areas in which they now live or whether these opportunities must be developed in urban settings, often hundreds of miles removed. (10:20) Marshall indicates that technological breakthroughs in planting and harvesting tobacco, fruits, and vegetables probably will cause

considerable displacement of labor during the 1970s. These developments will hurt migrants and seasonal farm workers in particular. He notes that full-time employment opportunities in agriculture are increasing and are likely to continue to do so as farm sizes increase, as farms become more capital intensive, and as world-wide demand for farm products grows. (27:42)

In summary, the mechanization of farms since World War II has greatly reduced the demand for farm labor. This reduction has created numerous manpower problems because of the large numbers of people involved, because many of these persons lack the skills required for gainful employment in nonfarm occupations, and because many employment opportunities are geographically removed from the persons needing work. Demand for farm workers in the future is expected to decline further as mechanization of farms continues but the number of persons displaced in the future will be less than in the past because of the relatively few individuals now left in agriculture.

Nonlabor Resources

The decision of a firm to locate in an urban or rural area depends on a number of factors. In some cases the decision is determined by the location of some primary input used in production. One example is farming, where the primary input--farmland--is located in rural areas. Other activities tied to rural areas because of their natural resource requirements include ranching, logging, and mining. Changes in the demand for labor in rural areas will depend to some extent on changes in the demand for the products of these resource-based firms and on changes in their production technology. In general, the production technology of these firms has shifted toward greater capital intensity, thereby reducing the demand for labor.

The demand for products produced by these resource-based firms tends to be quite cyclical. This often results in a boom or bust situation for the rural economy and the demand for rural manpower. Certain resource-based industries also have wide seasonal variation in their demand for labor, creating further manpower problems. That portion of unemployment due to seasonal factors cannot be corrected by retraining programs. Programs to stimulate alternative sources of demand in order to raise employment during the low months will merely cause a labor shortage during the peak months, thereby creating additional problems.

One realistic solution rests in the diversification of the economic base to include some industries whose peak employment months coincide with the low employment months of other industries. This has been proposed for the Upper Peninsula of Michigan, where most seasonal industries (furniture and fixtures, construction, transportation, wholesale trade, retail trade and service categories) have low employment months during the late fall and winter and high employment months during the summer and fall. By expanding employment in the lumber and wood products industry, which has an employment low in the spring and high in the winter, excessive seasonal unemployment could be avoided. (48:44-45)

A long-run shift in the demand for resource-based products can have a very dramatic effect on the demand for rural workers. This was demonstrated by the decline in demand for coal after World War II, which caused high unemployment among workers in the Appalachian coal producing region. Now with the price of imported oil high, there has been a revival of demand for coal and a corresponding increase in the demand for coal workers. If environmental problems can be worked out, the largely rural Rocky Mountain states should see increases in the demand for rural manpower as the nation seeks to develop its abundant energy resources in this area.

Hansen notes that the energy crisis has created somewhat of a boom in rural extractive industries. He indicates that the basic dependence of rural people on secondary and tertiary sources of work will not be reversed, however, since there will be continuing advances in labor saving techniques in extractive industries. (24:39) Furthermore, higher energy prices work a greater hardship on rural areas by increasing access costs for firms locating in these areas and for rural workers, who often drive long distances to work. (24:38) Finally, rural employment in tourism will also be adversely affected by higher energy prices to the extent that they cause persons to reduce their travel for recreational purposes.

While the demand for resource-based products and the location of those resources are often factors influencing the demand for rural manpower, it may seem that little can be done in this area to affect the demand for labor. This view assumes, however, that resources are being used to their fullest potential. To the extent that they are not, the demand for rural manpower can be enhanced

by the development of a rural region's resources. One example of this is avoided by the five-county Satilla River area of Georgia, where a program of reforestation is being attempted. In this area there is an on-going effort to obtain low interest, long-term loans and/or subsidies which will make it possible for every interested small landowner to reforest denuded, nonproductive land. Provisions have already been made to reforest 3,000 of the 343,000 acres available for planting. Conservative estimates indicate that within two decades the federal government's original investment of $40 per acre will yield $400 per acre in taxes, or approximately 12.25 percent annually compounded interest on the investment. For the entire project it is estimated that over 300 man-years of labor will be required just for preparation and planting and that over $300 million will be pumped into the local economy from timber sales. (40:174-177)

Other rural areas of the country may have different resources which can be developed to provide greater employment opportunities for rural manpower. The Columbia Basin Federal Reclamation Project in Washington State brought thousands of acres of desert under cultivation and provided numerous jobs in agriculture, food processing, and related industries. More recently, technological developments in irrigation and fertilization have made it possible to grow lush crops on land in Eastern Oregon and Washington previously viewed as worthless because of its high sand content. In the plains area of Western Texas and Oklahoma, manufacturing growth has tended to be resource-oriented in response to the prosperous farming, ranching, and oil-producing base. Available jobs are in packing plants, firms manufacturing fertilizer, developing plans for crop-dusting, etc. (64:16)

The possibilities of tourism as a resource-based industry in rural areas should not be overlooked in some scenic areas. Till indicates in his study of the South that the hill country and Border South are quite beautiful and contain much potential for tourism and service jobs. In Northwest Arkansas, tens of thousands of tourists come each year, creating numerous jobs in motels, restaurants and retail craft and souvenir shops. Rural scenic areas can also provide amenities attractive to management of prospective plants. (64:16)

Salaries paid rural workers in resource-based manufacturing firms tend to be higher than those paid in rural labor-oriented manufacturing firms. However, the former are more likely to bring in employees from the outside and to hire

the cream of the local labor force. These factors somewhat limit the firms' impact on the demand for rural manpower, and especially for individuals with limited education and training. Till notes that most Southern nonmetropolitan industrial development has not been of this type. He warns that generalizations from case studies of resource-based manufacturing firms--such as Gray's study of the Kaiser aluminum plant in West Virginia--can be very misleading. (64:16-17) It should be noted that a resource-based manufacturing firm which does not employ rural workers with limited education and training, nevertheless can increase the demand for such workers. Because of the firm's presence, local job opportunities increase due to greater spending in the area and to the job vacancies left in the community by local workers who are creamed by the incoming firm.

Rural Social Overhead Capital

Developing the full potential of a region's resources often requires investment in substantial amounts of social overhead capital such as highways, rail lines, port facilities, power generation facilities, communications networks, airports, etc. Provision of adequate amounts of social overhead capital can make it more profitable for a firm to locate in a rural region. Improved transportation routes reduce a firm's costs of transporting its inputs to its manufacturing facilities and its finished products to market. Better highways also make it possible for rural workers to commute greater distances to jobs, thereby making it possible for a rural firm to draw its workers from a larger pool.

While most of the studies reviewed agree that economic development of a region is dependent on an adequate transportation network, there is no consensus concerning the priority that should be attached to highway construction in a program of economic development. A study by Hansen concludes that highways have not been crucial factors in population turnaround in nonmetropolitan areas. Hansen notes that his findings are consistent with those of Kuehn and West, whose study indicates that highways have not been crucial factors in economic development within the Ozark Region. In another document, Hansen analyzes the urban and regional dimensions of U. S. manpower policy and suggests that developmental spending to encourage the growth of rural areas could be better used to to encourage the development of intermediate size cities in which rural workers could find employment opportunities. (22:4)

In his study of industrial development of the nonmetropolitan South, Till observes that the most serious poverty problems occur in the more isolated areas. Bad roads, lack of a car, or sheer distance prohibit workers living in these areas from taking jobs in main centers of the South. (64:15) Berger's study presents empirical research indicating that transport costs play a very important role in influencing regional wage determination. He suggests relief to mature areas, reversing adverse growth patterns, may be provided by policies leading to a reduction in access costs to nonlabor input and final input markets. Such a policy could effectively raise the wage at which firms can earn normal returns to capital, thereby reversing wage, employment, and migration trends in slow growth regions. Regarding new highway construction, Berger notes that the basic question is whether the benefits exceed the costs. For mature regions with substantial investments in fixed capital and housing facilities as well as high costs of human migration, he suggests that a good case for highway improvement could be made, provided higher economic wage rates would result. (7:162)

Smith and Rungeling note that the absence of social overhead capital in poverty-stricken areas may retard industrialization and thereby perpetuate the poverty of the area. They indicate that a lack of essential public services -- roads, transportation and communication networks, energy production and distribution, education and health facilities, and water and sewage systems -- has hampered the development of high productivity industries in the Midsouth. (60:97-98)

Rural Industrialization

Although rural areas have suffered large declines in employment opportunities in agriculture, forestry, fisheries, and mining, in recent years there has been a significant increase in employment in rural and urban employment by industry between 1960 and 1970 for the entire United States.

| Industry | Number of Persons Employed in Urban U.S. | | Number of Persons Employed in Rural U.S. | |
|---|---|---|---|---|
| | Absolute Change | Percent Change | Absolute Change | Percent Change |
| Agriculture, forestry and fisheries | 64,093 | 12.41% | -1,573,489 | -41.17% |
| Mining | 26,790 | 9.00 | -50,008 | -14.03 |
| Construction | 494,625 | 18.93 | 261,673 | 21.75 |
| Durable Goods | 1,283,901 | 17.03 | 628,427 | 27.47 |
| Nondurable Goods | -7,296 | -0.13 | 419,090 | 22.32 |
| Transportation, communication and public utilities | 563,063 | 15.87 | 164,891 | 18.10 |
| Wholesale and retail trade | 608,296 | 6.55 | 635,949 | 25.39 |
| Finance, insurance and real estate | 974,535 | 41.57 | 169,222 | 48.29 |
| Business and repair services | 699,798 | 54.21 | 84,361 | 26.38 |
| Personal services | -237,376 | -7.93 | -84,542 | -9.79 |
| Entertainment and recreation | 110,579 | 26.19 | 17,735 | 21.97 |
| Professional and related services | 9,378,589 | 156.31 | 2,369,285 | 150.17 |
| Public Administration | 831,595 | 32.12 | 167,167 | 27.23 |

Source: Bureau of the Census, U.S. Department of Commerce, Census of Population: 1960, United States Summary, Table 91, and Census of Population 1970, General Social and Economic Characteristics, United States Summary, Table 103 (Washington, D.C.: U.S. Government Printing Office.

These data indicate that, except for resource based industries, the rates of growth of employment in rural areas have been surprisingly high, corresponding roughly with that of urban America. Comparing changes in rural and urban employment, it can be noted that both the absolute and the percentage increases in employment in nondurable goods manufacturing and wholesale and retail trade were greater in rural areas. Of particular interest are employment statistics for nondurable goods manufacturing which show that employment actually declined in this industry in the urban U.S. while rising 22 percent in the rural U.S.

How much of this growth in rural employment occurred in genuinely rural areas, and how much in rural areas on the fringes of major SMSAs? Till (64) attempted to answer this for nonfarm employment changes in 13 southern states. He collected data for counties fifty miles from SMSAs and found that nonfarm employment increased by 48.9 percent in the distant nonmetropolitan counties between 1959 and 1969, or an absolute increase of 674,345 jobs, while the increase in nonfarm employment in the SMSAs was 49.7 percent or an absolute

increase in jobs of 2,811,677. When he examined changes in manufacturing employment, he found that the distant rural counties grew by 61.1 percent and the SMSAs by 47.7 percent; the absolute increases in manufacturing employment were 308,972 and 701,916 jobs respectively. In percentage terms both the growth in nonfarm and manufacturing employment were relatively greater in the distant rural counties than in rural counties within fifty miles of an SMSA. These findings do not support the hypothesis that rural employment growth has been an urban fringe phenomenon.

Much of the growth in rural manufacturing has been in labor intensive industries. Firms have sought out rural areas because of abundant manpower and low wage rates. This seems especially true in the rural South where employment is heavily concentrated in the relatively low-paying, nondurable manufacturing sector. (27:73) Till, Thompson and Marshall have done research to examine the industrialization process in nonmetropolitan labor markets of the South. Their findings indicate that the main attraction of the South seems to have been the labor force, specifically the lower wage levels, abundant labor supply and the absence or relative weakness of unions. This labor surplus came about because farm and logging-sawmill jobs declined greatly and outmigration was not sufficient to clear the market of excess labor. The labor surplus attracted marginal labor-intensive manufacturing activities in textile, apparel and shoe manufacturing from the high-wage, unionized North. The disciplined labor force which developed during this first phase of industrialization helped to attract primarily labor-oriented, medium-wage and more capital-intensive manufacturing and brought electrical and nonelectrical machinery and transportation plants to the nonmetro South in large numbers for the first time in the 1960s. Thus there were two phases of industrial development, the first low-wage and labor-intensive, the second medium-wage and less labor-intensive. (64:5-15)

Important questions remain. Will rural industrialization progress to a third phase -- a relatively high-wage, unionized stage similar to the industrial North? If this should occur, won't firms lose the incentive which caused them to locate in rural areas in the first place? Might they not then relocate back in urban areas where they can take advantage of external agglomeration economies not available in rural areas? The answers to these questions are complicated and depend on much more than wage rates. Berger notes that the real issue is

whether wages in a region are too high relative to the price, productivity and access conditions facing the firm in that area. Consequently, high wage regions may experience an expansion of employment opportunities, while in low wage regions wages may not be low enough. (7:147)

The importance of manufacturing as an employer of rural manpower was further documented in a study by Smith and Rungeling. They found that almost 32 percent of total white employment in the nonmetropolitan Midsouth was in manufacturing. Like others, they found manufacturing employment in the rural South to be concentrated in the low-paying nondurable goods sector. (60:98-99)

The rural industrialization process has not affected all persons living in rural areas to the same extent. Till, Thompson and Marshall found that the areas of the South largely populated by blacks experienced the least industrialization. (64:5-15) A study by Walker concludes that the black poor did not share equitably in the economic growth and development in the Deep South. (67:40) Research by Somers suggests that when high wage industries do come into a rural area they are likely to hire the "best" workers in the local area and bypass altogether the chronically unemployed and the disadvantaged. (40:104)

The studies examined suggest that, while rural industrialization has been progressing at a rapid rate, increased employment has not been sufficient to offset the large employment losses in agriculture. Furthermore, it is mature, slow-growth firms that come to rural areas because of the abundance of cheap labor there. (23:28-36) This finding makes one question whether workers in rural America will trade marginal agriculture jobs for low paying manufacturing jobs and remain at the same low socioeconomic position or whether the country is witnessing the first stages of industrialization which will eventually bring rural America to a position comparable to the rest of the U.S.

## Rural or Regional Economic Development

The preceding section examined trends in the industrialization of rural areas and the effect of these trends on rural demand. This industrialization and its resulting impact on rural workers can be viewed as the product of natural forces, economic development efforts, or some combination of the two. In this section the rural manpower literature is examined in an attempt to assess

the contribution of rural or regional economic development efforts to rural labor demand. The section considers theoretical arguments for and against rural development efforts, including an examination of regional as opposed to rural development strategies as encompassed in a "Growth Centers" theory. It also looks at specific and/or regional economic development efforts which have been undertaken.

The Case for Rural Economic Development - The ARA Experience. Economic development of rural areas is seen by some to be the real answer to the manpower problems of rural areas. It is argued that economic development should be publicly stimulated in rural areas since factor market prices are biased in favor of large urban areas and understate the true market costs of production in large cities. This argument says that private business can capture the economies of scale of cities at lower private costs (such economies of scale include a cheaper and more flexible transportation and utility system, better research and development facilities, a more skilled and varied labor supply, and better facilities, for educating and retraining workers), while passing on to society various social costs that its presence imposes. These costs include traffic congestion; air, water, and noise pollution; social disorder; physical blight; high public investment requirements; and similar phenomena. (24:28-38) Economic Development is also supported with the claim that rural manpower training efforts are futile unless jobs are provided to those that complete training, and that viable jobs in rural areas can be created through development efforts.

Passage of the Area Redevelopment Act (ARA) in 1961 was based on these arguments. ARA's objective was to create new employment opportunities in rural areas having chronic high unemployment and low income. It was the first major national effort to help rural people help themselves revitalize existing communities and build new ones. It was intended to ease the problems rural areas faced as a result of the mechanization of agriculture. ARA was to accomplish its objectives through a program of local economic planning; long-term, low-interest loans to private business; loans and grants for public facilities required to assist new and expanding businesses. Technical assistance and training programs were to be provided. This program was administered through the U.S. Department of Agriculture with support from other Federal departments, all fifty state governments, and other public and private organizations.

A. Turly Mace, USDA director of the Office of Rural Areas Development (RAD), stated that the national aim of RAD was to give purpose, direction, and hope to rural America as it adjusted to rapid change by promoting the full utilization of natural, physical and human resources. A specific goal of the program was to create jobs for young people in rural areas with pay and chances for advancement comparable to those found in cities.

In 1963, Mace presented evidence that the RAD program was working. He indicated that local leadership had been mobilized, comprehensive plans for using all local resources had been drawn up, new capital had been attracted, new jobs created, and community facilities modernized. Specific case studies of success in the RAD program were cited for North and South Carolina, Tennessee, Pennsylvania, and West Virginia. (10:357-358)

While the cases cited by Mace suggest that ARA succeeded in providing jobs for rural America, one must be careful in making this inference from a limited number of cases. Several questions remain unanswered. How many of these jobs were really the result of economic development efforts and how many were the result of underlying economic forces that are causing rural industrialization anyway? How many of these jobs make sense when the real costs (both public and private) are totaled? Do development efforts increase the total number of jobs in rural areas or do they merely affect the particular rural location in which the jobs are located? For instance, the West Virginia RAD project suggested 75,000 to 100,000 new jobs could be created in the wood products industry. Perhaps 75,000 to 100,000 new jobs could be created in West Virginia, but at whose expense? It is doubtful that the industry as a whole would gain in employment.

In an evaluation of ARA, Somers conducted research to compare the characteristics, employment experience, attitudes, and income of three groups of workers residing in rural redevelopment counties in Northern Wisconsin, Northern Michigan, and Northern Minnesota. His three groups were an ARA sample of workers employed in ARA assisted plants, a sample of workers employed in Accelerated Public Works (APW) projects in forest redevelopment and public construction, and a comparison sample of non ARA/non APW workers living in the same communities from which the ARA and APW samples were selected. He found that relatively young ARA workers substantially improved their employment and income

status because most had had nonlabor force status, essentially as high school students, prior to their ARA employment. Older workers, who had been employed in declining industries prior to their ARA employment, experienced a decline in income. The ARA group experienced a significantly greater increase in personal income than did the comparison group, but median family income increased at about the same rate for both. (40:106-109) His findings cast doubt on the premise that ARA was able to improve rural opportunities in the specific areas in which it worked. Hansen indicates that limited funding, small scale planning, and lack of attention to human resource development were all factors in the failure of ARA to achieve its objectives. (24:52)

The Case Against Rural Economic Development. Some question the effectiveness of rural economic development efforts on the grounds that they are inefficient and accomplish little. Marshall (27:80-81) reports evidence from several studies indicating that efforts to "force-feed" the economic development of large lagging regions are inefficient and largely ineffective. Rural industrialization strategies are viewed skeptically because artificially locating industry implies an indefinite subsidy (and social costs reflecting nonoptimal location). Subsidizing successful moves by rural people to urban areas, on the other hand, has a one-time, self-liquidating cost.

According to this view, there are strong economic reasons why firms locate in urban areas. When firms locate together, they can take advantage of agglomeration economies and the concentration of innovation that exists in larger cities. For businesses, these external economies of agglomeration include: access to specialized business services and sources of capital; labor market economies in the form of more varied skills, greater elasticity of labor supply, superior training, and better organized worker placement services; a larger stock of managerial and professional talent; good public services; cultural amenities; opportunities for specialization because of the large market (product specialization, technical externalities, transport cost savings); economies of information and communication, especially where face-to-face contact is involved; greater adaptability and flexibility in the use of fixed capital; and last, but probably not least, presence of a variety of business entertainment facilities. Household agglomeration economies would include opportunities for

earning higher incomes and a wide variety of jobs, shopping facilities, public services, leisure and cultural amenities and housing. (24:28-38)

The economic factors described above help to explain why growth tends to foster growth and why rural areas have a difficult time in developing. They help explain the migration of persons from rural to urban areas, and support arguments in favor of manpower policies that encourage persons to migrate to large urban areas.

Growth Centers: A Compromise - The EDA and ARDA Experiences. A growth center strategy is designed to encourage the development of rural areas by concentrating investment geographically in small rural towns in order to obtain the scale and agglomeration economies of urban areas while avoiding many of the diseconomies of those areas. Growth centers provide employment opportunities for persons living in rural areas because their proximity allows commuting. They also serve as points of attraction for migrants who might otherwise go to large, congested cities. The literature distinguishes between spontaneous growth centers, growing without the benefit of special assistance or explicit policy, and induced growth centers in which public policy is trying to promote growth. Hansen has proposed a growth center strategy for the United States based on spontaneously growing intermediate-size cities. He suggests that it would be economically rational to induce accelerated growth in such places if they would provide employment opportunities to a significant number of commuter or migrant workers from lagging regions. (24:57) The argument in favor of the Federal government's fostering the growth of spontaneously growing intermediate-size cities hinges on this ability to provide employment to workers from lagging regions. (22:222-228)

There have been two experiments with the growth center strategy in the United States involving two agencies: the Economic Development Administration and the Appalachian Regional Commission. Both agencies came into being in 1965 under regional development acts passed in that year: the Public Works and Economic Development Act and the Appalachian Regional Development Act.

The Economic Development Administration (EDA) was established to assist multi-state regional commissions and to provide its own assistance to areas experiencing chronic economic distress. Early in its existence, the EDA experi-

mented with a "worst first" strategy whereby areas with the most severe difficulties in each aid category received top priority for funds. As of June 30, 1973, the EDA had spent 1½ billion dollars on over 3,000 public works projects. Over a third of its funds went to towns less than 2,500 people and over half to towns with less than 5,000 population. (24:65-68) This strategy was clearly inconsistent with the notion of clustering investment in growth centers of EDA districts where economies of scale could be realized. Because of this inconsistency one cannot use EDA experience to determine the ability of a growth center strategy to foster the economic development of rural areas or demand for rural manpower.

In contrast to the wide scattering of investments under the EDA program, the Appalachian Regional Development Act (ARDA) specifies that public investment under the Act should be concentrated in areas in Appalachia where there is the greatest potential for future growth and where expected return on public dollars will be the greatest. The Act is administered by the Appalachian Regional Commission (ARC), a 6-year cooperative venture in which the thirteen participating states and the Federal government participate as equals. It is the largest development effort yet undertaken in the United States.

Evaluation of how effective the ARDA has been in achieving its objectives is mixed. Newman has analyzed Appalachian Program Investments between 1965 and 1970 by state and by growth area. For the entire region, 62.1 percent of all investments were made in type 1 growth areas, those with the highest growth potential. Of the remaining investments 13.9 percent, 10.3 percent, and 13.7 percent were made in types 2, 3 and 4 growth areas respectively.[1] Type 4 growth areas were viewed as having no growth potential. For the most part, investment in these areas was concentrated on human resource projects rather than projects more directly associated with economic development.

Hansen has criticized the designation of a large number of areas in Appalachia as having significant potential for growth. He argues that the entire area does not have much promise for economic development. The ARC, he notes, has designated 125 areas with "significant potential for growth." Since each of the

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[1] Monroe Newman, The Political Economy of Appalachia, (Lexington, Massachusetts: D. C. Heath and Company, 1972), p. 156

region's sixty districts has at least one center so designated, it implies that nearly all of Appalachia is a promising growth area. (22:150-152) This is clearly inconsistent with the basic growth center strategy and represents the triumph of politics over economics.

Aside from the tremendous political problems that exist in implementing a growth center strategy, there exists the more fundamental question of whether a growth center strategy will work at all unless sufficient investments are made in human resources. Hansen criticizes a growth center strategy that utilizes dollars which could be used for human resource development. A recent evaluation of the Appalachian Regional Commission indicates that there has been a considerable shift in favor of human resource projects in terms of actual project expenditures. Hansen argues that this represents a milestone on the road to replacing place-oriented policies with approaches recognizing that the welfare of the people is, or should be, the principal objective of economic policy. (24:88-89; 22:223)

The effects of the economic development efforts of the Appalachian Regional Commission on the demand for rural labor remain unclear. The ARC has not been able to do a great deal in stimulating the demand for rural workers within Appalachia. Perhaps it has been more effective in raising the skill levels of these rural workers so that they can effectively compete for job opportunities outside the region.

Recent Rural Development Efforts. The most significant recent rural development legislation was the Rural Development Act of 1972. The Act, administered by the U.S. Department of Agriculture, is a collection of many different legislative authorities. It contains a number of provisions designed to promote community development, including facility and planning grants, loans, and loan guarantees for communities, businesses, and individuals. Marshall notes that although the Rural Development Act of 1972 could be very significant for creating new jobs, providing many needed public facilities and meeting some of the research needs of small farmers, there are reasons to believe it will not realize its potential s ce it does not contain an adequate conceptual framework for a rural development policy.

Somers sees the RDA of 1972 as being similar to other regional development legislation but he is somewhat more hopeful in evaluating its prospects since it requires the establishment of goals for employment, income, population, housing, and the quality of community services and facilities. Since progress in attaining these goals must be reported annually, Somers expressed hope that Congress will be able to utilize these reports to produce legislation that will promote the employment and income of the rural poor. (40:104)

Other economic development efforts have been less ambitious in design than those previously discussed. For the most part these efforts involve attempts by local groups to stimulate economic development in their own towns, counties or areas by inducing industrial development. While there are isolated cases of success, there is considerable doubt about the ability of such efforts to raise the overall demand for workers in rural areas. In fact, there is a good deal of evidence that such efforts negatively affect manpower development in a region. Studies indicate that industrial development strategies often cause local governments to pay too much for industry through tax abatements which then seriously reduce the ability of those governments to finance needed social services. (23:39-40; 64:13; 40:104-109)

Wages, Unions and Rural Labor Demand

Dollarwise, labor is the single most important input into the production process of a firm, accounting for approximately sixty percent of all input payments on a national basis. The price a firm has to pay for labor, together with the productivity of that labor, determine the amount of labor a firm will employ in order to maximize profits. The demand for rural manpower is affected by its price (wage) and productivity and by the price-productivity of any substitute (such as capital equipment or urban-based labor). In rural areas there has been a dramatic shift in the demand for labor which has occurred in resource-based industries such as agriculture, forestry, and mining because of the substitution of capital equipment for men. Those that remain employed received much higher wages because of the tremendous increase in productivity brought about by the use of capital equipment, but because of this efficiency the total number of workers demanded in these industries has delined sharply.

Persons in this rural pool of surplus labor either migrate to urban areas in search of more attractive employment opportunities or remain in rural areas working at whatever jobs they can find. In general, it has been found that the better educated and young are most likely to migrate from rural areas. Those that remain compete for the few jobs available tending to keep wage rates depressed. The result of this depressed wage situation has been to attract industries to rural areas that require large amounts of low-skill labor. Till, Thompson, and Marshall point out in their study of nonmetropolitan labor markets of the South that the main attraction for the great manufacturing boom taking place is the labor force, specifically the lower wage levels, abundant labor supply, and the absence or relative weakness of unions. (64:9-10) Where a rural area has had high-wage unionized plants in the past, new firms are reluctant to come in. In the South this is true of Eastern Kentucky (coal mining), Central Louisiana (paper mills), and Natchez, Mississippi (paper mill and tire plant). (64:17) When labor-intensive firms locate in a rural area, they help develop a labor force accustomed to factory discipline. This in turn helps attract medium-wage oriented firms that are more capital intensive. The effect of this can be a conflict between the low-wage plants, which now have difficulty getting all the help they want at the wages they want to pay, and the medium wage plants. Unionization of the labor force gradually occurs as development proceeds, but the strength of unions is less than in the North. (64:12-13)

Other studies suggest that even though there is a large pool of unemployed and underemployed manpower in rural areas, institutional barriers limit downward wage adjustments and therefore employment alternatives. These barriers include minimum wage laws, industry-wide collective bargaining, and similar practices which affect the downward flexibility of wages and the volume of employment. It is argued that there are many rural people who might offer their services for lower than prevailing wages if there were free entry to many occupations. (10:26-27)

Berger's analysis of Pennsylvania labor markets suggests that economic stagnation will develop when wage levels facing a region's export sector are too high relative to price, productivity and access conditions to permit normal returns to capital. This situation leaves producers ineffective in competing for labor both with other industries in the region and with industries in other

regions where access conditions permit higher wage levels. Slow growth areas, because of their locational disadvantages, are not able to support sufficiently high wage levels to attract or maintain a labor force. At the same time, wage levels are not sufficiently low to permit many firms to earn normal capital returns. As a result, mature regions not only lose workers to high wage areas. They also lose firms to locations where prevailing wage levels and access costs permit at least normal capital returns to be earned. (7:147-148)

Berger studied the process of economic development in mature regions by testing two theories, the traditional export base theory and the neoclassical regional growth theory of George Borts and Jerome Stein. (The latter has been extended by Richard Muth.) The two following diagrams summarize the essential differences in how the labor market is viewed under the export base theory and the Borts-Stein theory.

Diagram 1

EXPORT BASE VIEW OF
REGIONAL LABOR MARKET

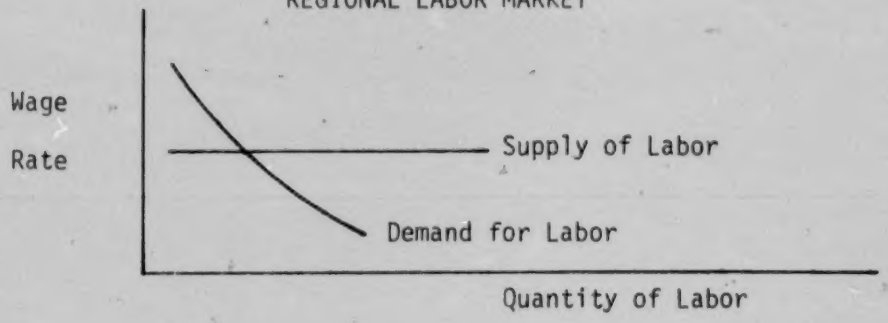
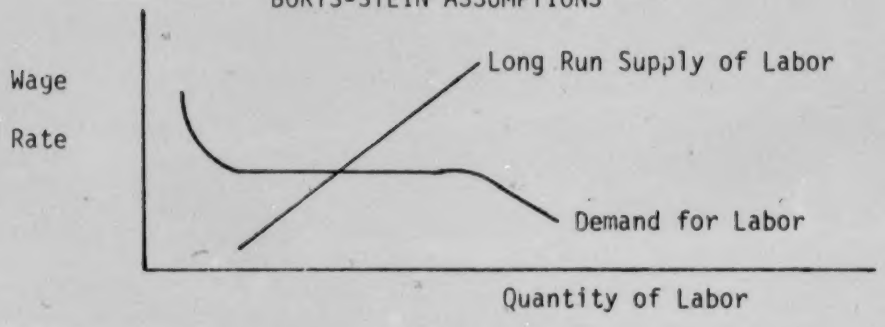



Diagram 2

REGIONAL LABOR MARKET UNDER
BORTS-STEIN ASSUMPTIONS



According to the export base theory, growth comes to a region as a result of increasing demands for products that the region exports. This is indicated on diagram 1 above by a shift in the demand-for-labor curve to the right. Under the Borts-Stein model the demand for labor by firms selling only within the region is downward-sloping but the demand for labor by firms selling in national markets is perfectly elastic at a rate determined nationally. A perfectly elastic labor demand curve implies that at a certain wage rate the quantity of labor demanded in a region is unlimited.

The export base theory maintains that the growth of the labor force within a region is determined solely by shifts in the demand for labor. The Borts-Stein theory attributes such growth solely to shifts in the supply of labor. Berger tested the two theories empirically, using Pennsylvania data for 1953-66. The results of the tests failed to substantiate the export base view, and confirmed the Borts-Stein model's contention that the major role of the export sector is the determination of regional wage levels. According to the Borts-Stein model, economic stagnation will develop when wage levels facing a region's export sector are too high relative to price, productivity and access conditions to permit normal returns to capital. Although exogenous economic factors had a very important influence on regional wage determination, the Borts-Stein hypothesis that the regional demand for labor can be viewed as infinitely elastic is not supported by the empirical findings. The findings do suggest that the demand for labor is very elastic, however, and support the alternative neoclassical growth hypothesis that the individual demands for labor of exportable industries within a region can be viewed as infinitely elastic and exogenously determined by price, productivity and market access conditions.

On the basis of these findings, Berger suggests that overall economic efficiency would best be served by a relocation of firms as well as residents to other regions where higher wage rates are feasible. He indicates that such a solution may not always be appropriate, however, since it may ignore the costs associated with the fixed assets in a mature region and the severe economic and psychic hardships suffered by older residents. Berger concludes that once government decides to provide assistance to distressed areas, there are three approaches through which relief can best be provided, using the criteria of maximizing economic efficiency. These are: incentives as well as assistance to mig-

rants, wage supports for firms and workers, and improvements in transportation access conditions. (7:159-160)

The idea of publicly subsidizing the wages of rural workers for a training period in an attempt to raise the demand for rural manpower was suggested to a sample of Vermont employers. They expressed a general willingness to hire wage-subsidized workers, but overall they did not believe that wage subsidies alone could add new jobs to their firms or increase anticipated expansion. Overall only twenty-two percent of interviewed employers felt a wage-subsidy program could create additional permanent new jobs that would extend beyond the subsidy period. (15:3) This implies that if wage subsidies are to increase the demand for rural workers permanently, the subsidies must be permanent.

Ray Marshall advocates extending minimum wage coverage to agricultural workers and suggests that such coverage would not adversely effect the demand for rural farm workers. He suggests that such legislation has important manpower implications because it affects the willingness of workers to remain in agriculture and the extent to which employers are willing to hire and train workers. Marshall notes that a number of factors limit the detrimental impact of minimum wages on employment. The most important is that a uniform minimum wage which raises labor costs across the board can cause price increases that will not have too much impact on the demand for agricultural products, which is generally price inelastic. (27:165-167) However, it must be recognized that higher labor input prices not only affect labor demand through their effect on final product demand but also through substitution of nonlabor inputs. Over time the effect of the minimum wage might very well be to cause agriculture to become more mechanized than it would otherwise, thereby further reducing the demand for labor.

Smith and Rungeling's study of rural white proverty in the Midsouth found that thirty-six percent of the employed persons in the sample worked for wage rates below the federal minimum, and seventy-nine percent worked for less than the proposed minimum of $2.20 per hour. If minimum wage laws are extended to these persons, the effect may very well be a decline in the demand for rural labor. (60:69)

To the extent that unions are successful in raising the wage rate above levels that would prevail in the absence of unionization, the demand for rural

manpower may be adversely affected. Lower demand will occur if final product demand declines as a result of higher prices, if nonlabor inputs are substituted for labor as a result of higher labor prices, or if industry relocates to obtain nonunionized labor elsewhere. The future will probably see greater unionization in rural areas but there are reasons to believe rural unions will never have the strength of unions in urban areas. Unions have rarely been very successful in organizing in the labor intensive, competitive, and low-wage industries typically found in rural areas. Labor surpluses in rural areas, the value systems of rural workers, long distances between rural workers, and rural power structures all make unionization difficult. (27:163) In his analysis of trends in agricultural unionization, Marshall concludes that unionization will expand but at a slow rate. Furthermore, Marshall suggests that agricultural unions will probably have more effect on public policy than on wages since it will be easier for them to gain benefits for their members through policy processes than to raise wages through traditional collective bargaining procedures. (27:161-162)

Discrimination

The effects of discrimination on rural labor demand have been studied most thoroughly for rural southern blacks. Other studies reported here consider discrimination against teenagers and Mexican-Americans. Most studies do not offer "proof" that discrimination has in fact reduced the demand for the labor of specific groups, but they supply a good deal of evidence indicating that this has been the case.

Walker's study on economic development, black migration, and black employment in the South explored the extent to which blacks have participated in the expanding nonagricultural economy of the nonmetropolitan Deep South. His analysis looks at employment and migration changes between 1960 and 1970 for 244 nonmetropolitan counties with large black populations in Alabama, Arkansas, Georgia, Louisiana, Mississippi, and South Carolina. His study strongly supports the hypothesis that discrimination has reduced the employment opportunities of blacks in the nonmetropolitan Deep South. Blacks have not received an equitable share of employment growth largely because of current labor market discriminations.

Walker found that black employment gains were hindered by anticipated and perceived current occupational discrimination and by growth characterized by

requirements for workers from high occupational levels. Even though blacks represented almost forty percent of the population in 1970, they captured only sixteen percent of the nonagriculatural employment growth. Economic growth reduced the white net outmigration rate to .9 percent between 1960 and 1970, but the black net outmigration rate of 27.7 percent was hardly affected. By sector, manufacturing and especially nondurable goods sector showed the greatest increase in black employment. In contrast, blacks did not share in employment gains in mining, wholesale and retail trade, finance, and public administration.

Walker found education to be a relatively unimportant determinant of black employment gains. This casts doubt on the validity of arguments relating the human capital disadvantages of blacks to their ability to obtain many of the new jobs in the Deep South. Walker did indicate, however, that the generally lower quality of the work force in predominantly black areas of the South probably has been a major reason why firms have avoided these areas. This finding suggests that manpower programs that raise the occupational skill level of the labor force may be effective in enhancing employment growth in these areas.

Walker's study leaves unresolved the question of whether or not blacks with higher occupational skills have been victimized by discrimination. Employers interviewed believe that few qualified blacks are available for white-collar employment in the Deep South. The black community, in contrast, indicated that educated blacks have been available for white-collar jobs, but discrimination has forced them to withdraw from the labor force or migrate to metropolitan areas. (67:169-177)

Both Walker's study and a study of industrial development in nonmetropolitan labor markets of the South indicate that economic development has been very uneven. Certain areas containing large concentrations of blacks have shared very little in this development. Both studies note that there is some confusion as to whether employers practice discrimination or whether it is other labor market characteristics of blacks (such as limited education and training) that adversely affect their chances of gaining employment. Determining the cause may be unimportant, however, because limitations on the occupational skills of blacks probably result from past discrimination in education and training. In either case, discrimination has reduced the demand for rural black manpower.

Another study of economic factors affecting the mirgration of rural youth in the Southeast found discrimination in hiring to be an important cause of migration for rural black youths. The findings indicate that seventy percent of the black, but only forty-nine percent of white youths report having some kind of difficulty in finding work. The most frequently given reasons are: no experience (29% of white, 27% of blacks), no vocational training (25% of whites, 28% of blacks), no high school diploma (9% of whites, 16% of blacks) and discrimination (0% of whites, 25% of blacks). Among job-related reasons given for migrating to the cities, fifty-nine percent of blacks, but only seventeen percent of whites, list the lack of jobs in the rural areas as a "very important" reason. Of non-college rural-to-urban migrant youth, forty-seven percent for the blacks and eleven percent for the whites gave discrimination in hiring as the reason for moving to the city. The study notes that part of the apparent discrimination in hiring experienced by black youth may result from black youths anticipating worse discrimination than really exists. The study found that fifty-one percent of blacks but only twenty-five percent of whites expect to have trouble finding a job in their home towns. (38:50-59)

In a study of the migration and employment of Mexican-Americans in Michigan, only eight percent of the respondents report ever having experienced racial discrimination in seeking employment in Michigan. The study suggests that discrimination may be more prevalent than reported, however, because two-thirds of the Mexican-Americans interviewed agreed with the statement that "Mexican-Americans in this town have to work harder than Anglos to get ahead." It also suggests that few Mexican-Americans may have sought jobs in plants or lines of work in which discrimination would most likely be encountered. Such jobs may be avoided because of the friend-family method of referral often used by Mexican-Americans in getting jobs and because they may want to avoid situations involving potential rebuff. (17:170-171)

A 1968 study of rural teenage unemployment in two rural North Carolina counties was directed toward the identification of variables related to the high rate of teenage unemployment in the rural South. A particular concern of the study was to determine whether black teenage unemployment in rural areas was high relative to white teenage unemployment and to explain any differential rates of unemployment between the two groups. The findings of the study suggest

but do not prove conclusively that discrimination has adversely affected the demand for certain types of rural labor. Discrimination is suggested by: (1) the inability of the study to explain the high rate of unemployment among black females by the factors, characteristics and conditions analyzed, (2) the more limited training and educational opportunities for blacks which limit their skill development and ultimately the demand for their labor services, and (3) the informal method of job search used by whites, which suggests that an "old boy" network for filling jobs exists that discriminates against those with limited contacts. In addition, employers expressed reservations about employing teenagers, suggesting that discrimination adversely affects the demand for all teenage rural workers, white and black. (54:148-151)

Cultural Factors and Community Attitudes

Several studies reviewed indicate that cultural factors and community attitudes can have a strong impact on the demand for labor in rural areas. The political and other leaders of a community or region may oppose or not solicit industrial development is such development would not benefit them personally. A study of industrial development and nonmetropolitan labor markets in the South indicated that if the leadership in a town has made its wealth from other sources (coal, farming, etc.) and is satisfied with the status quo, manufacturing firms probably will not come. Manufacturing firms can choose many other locations whose leadership encourages relocation. (64:17) Balliet suggests in his study of Anglo poverty in the rural South that the power structure and "closed society" of the region, rather than minority discrimination and exploitation, are largely responsible for its slow economic development. He indicates that although there has been considerable progress in economic and human resource development over the past 30 to 40 years, the rural South's economic, political and social infrastructure remains relatively rigid, reflecting a long history of opposition to diversified growth and development. He notes that in many rural areas in the South, the control of economic and political institutions has remained with a small but powerful group of corporate and agricultural interests. He concludes that the solutions for problems of economic and human resource development depend on fundamental change in the region's framework of social, political, and economic institutions which for so long have stood in the way of progress. (3:306-311)

Studies of economic development among Indian tribes indicate that cultural factors play a strong role in affecting the decisions of firms to locate or not to locate on the reservation. A study of rural Navajo and Papago youth reports that the very bases of the value system learned by Indian American people are diametrically opposed to those taken for granted by white American society. Fundamentally different values have been observed in the categories of time structure, personal attitudes, world view, and cultural identity. Indian culture has a present-time orientation and not much time is spent in planning for the future or adhering to rigid time schedules. Personal attitudes can be characterized as nonaggressive, noncompetitive, nonmaterialistic, and not reward-oriented or goal-oriented. The Indian view of the world and life is that all of life is a comprehensive whole and he is part of it. This philosophy runs counter to the specialization, division of labor, and respect for scientific and technological mastery that characterizes white American society. In short, there are radical cultural differences between white and Indian society that make it extremely difficult for Indians to participate in the labor force and for whites to understand Indian ways. The fact that there are so few jobs on the reservation today documents how very little industry has done to adapt to these cultural differences.

Legal Factors

The relationship between certain governmental activities (e.g., economic development efforts and manpower programs) and the demand for labor in rural areas is clear and direct. Other government policies and activities, designed to meet other objectives, indirectly affect the demand for labor in rural areas. This section highlights certain laws and governmental activities which have been identified in the ORD documents reviewed as having an adverse effect on the demand for labor in rural areas.

Poor access conditions have an adverse effect on the demand for rural labor; poor access raises a firm's cost of doing business in a rural area. Highway construction has been identified as one way of improving access conditions. Laws regulating the rates which shippers charge can also influence the costs of access to a particular area. Truck and rail rate regulations that allow raw materials to move at a much lower cost per mile than finished goods creates a bias for a

firm to locate its production center near the point where final output will be sold, usually a large metropolitan area. Thus rural areas are left with capital intensive jobs that involve extracting raw materials (mining, farming, logging) while urban areas provide secondary employment involved in processing these materials into final goods. A revision of such rates could reduce access costs in rural regions and raise the level of wages at which normal capital returns could be earned. (7:153)

Marshall has identified a number of U.S. agricultural policies which have indirectly accentuated the displacement of rural agricultural workers. He comments that there are few if any areas of U.S. domestic policy in which inadequate planning and human resource development have had greater consequences than in agricultural and rural development. Agricultural policies, he says, generally have displaced the poor of any race or ethnic background and have done virtually nothing to prepare displaced agrarians for alternate employment. (27:33-34) Among acts and agencies Marshal identifies as adversely affecting the demand for rural labor are the Agricultural Adjustment Act, the Agricultural Stabilization and Conservation Service, the Extension Service, Land Grant USDA research, and the Farmers Home Administration. The Agricultural Adjustment Act, which sought to stabilize farm income by limiting the acreage of cash crops, removing agricultural surpluses from the market, paying agricultural subsidies, and promoting resource conservation, primarily benefited large farmers who had sufficient land and capital to take advantage of its provisions. These measures essentially subsidize land and capital, thereby displacing labor. The Agricultural Stabilization and Conservation Service, which administers price supports and acreage and crop quotas, has been entirely controlled by whites. As late as 1968 no black was a regular member of a county Conservation Service Committee. The Cooperative Extension Service was established to provide farmers with advice and management on the technical aspects of farming, but the service remained racially segregated until 1964 and has not had an effective outreach program to help the small poor farmer. During the 1960s, however, the Extension Service did place aides in some 1500 communities in an attempt to extend to smaller farmers the same range of services that it has always rendered to larger ones. Unfortunately this effort came after a great many small farmers had already been displaced. Land Grant USDA research has, in Marshall's view, responded to the interests of

larger commercial farmers by developing plant and livestock strains and machinery not adaptive to the uses of small farmers. In recent years there has been a modest increase in research devoted to the problems of small farmers but the amount has been small relative to that devoted to agricultural production. Finally, since the Farmers Home Administration is required by law to help those who could benefit from the loans it makes, funds have gone to the more affluent who have been better able to convince FHA officials that they would make profitable use of the loans. Although between 1964 and 1967 blacks comprised about one-third of all farmers in the South and a much larger share of all poor farmers, they received only one-fourth of all loans and one-seventh of the funds. Marshall concludes that the agricultural establishment has, through its actions, made a self-fulfilling prophecy of its belief that small farmers are obsolete and have no real future in American agriculture. (27:34-41)

## Forecasting Regional Labor Demand

The large number of factors which affect the demand for labor in rural areas has been documented in the pages immediately above and suggest that forecasting future demand is a very difficult and complex task. Nevertheless, it is a task which has been assigned to local manpower planners by the Comprehensive Employment and Training Act of 1973 (CETA). ORD has sponsored some research on forecasting techniques. The results will be reported here to introduce current CETA planners to the research that may have identified techniques that will help them forecast future demand for labor in rural areas.

Several of the documents reviewed develop procedures for forecasting the demand for labor in a specific area or region. Although none of the documents dealt exclusively with rural manpower, for the most part they studied regions which were rural or nonmetropolitan in character. This section reports on these studies and describes in very general terms the procedures used in forecasting. The reader is referred to the specific documents discussed for detailed information about the forecasting techniques.

Area Skill Surveys

The Area Skill Survey is a technique that involves surveying a representative sample of employers within a region in order to collect information on the number of people currently employed in 50 to 200 occupations and the employers' projections of their employment in these occupations two and five years in the future. On the basis of these projections and information about the prospective supply of labor, a determination of shortage and surplus occupations can be made. If Area Skill Surveys can be made with accuracy, they can help planners design manpower training programs which fit the needs of the community.

Moser's study attempts to evaluate the accuracy of the Area Skill occupational projections. Her specific concern is to evaluate allegations made in the literature which claim that Area Skill Surveys contain many inaccuracies and may, in fact, be worse than no projections at all. Moser conducted follow-up studies of Area Skill Surveys in order to determine to what extent current employment in various occupations conformed with previous projections. In 1966 she did follow-up studies of surveys taken in Roanoke, Virginia, and Petersburg, Virginia, in 1964. Moser reports that the Petersburg and Roanoke Area Skill Surveys, as well as two other Area Skill Surveys evaluated by Fletcher Wellemeyer, predicted the future better than a no-change model.

Moser found that it is possible to remove even more of the uncertainty associated with the projections by the application of a naive growth model. Employers, it was discovered, tend to be conservative. They make a large number (over 50%) of no-change projections either because they actually feel that no change in employment will occur, or because they do not wish to project the change. In light of this finding, Moser recommends that the Employment Service apply some type of naive growth model in occupations which are numerically significant and known to be growing. An evaluation of the relative merits of the Area Skill Survey technique and an alternative projection technique that avoids employers' forecasting altogether concluded that the former should not be used in areas smaller than the very largest metropolitan areas or in geographic areas smaller than a state or large economic region. To improve the workings of participation in the Area Skill Survey, Moser recommends that the list of occupational categories be reduced and the projection period shortened to not more than two years. (43:15-19, 165-167)

Input-Output Models

The input-output method is an analytical tool developed by Wassily Leontief which combines economic theory and facts to show the interdependence of economic activities. It allows one to assess the impact of changes in inputs and outputs in one sector of the economy on the inputs and outputs of the other sectors of the economy. The input-output model divides the economy into a number of industries, with each sector appearing as a producer of output and a user of inputs. A transactions matrix in the model defines the supply and demand relations which exist in the economy when it is in equilibrium. Direct requirements tables describe the production input structure of the economy at a given time, and the direct and indirect tables measure the expansionary effect on each sector of an increase in final demand.

The model is static, describing interindustry relationships at a point in time. It assumes that only one method is used for producing each group of outputs, that each sector has only a single primary output, that the inputs purchased by each sector are a function only of the level of output of that sector, and that the total effect of carrying on several types of production is the sum of the separate effects. These assumptions are necessary in order to compress the complexity of the economy into a useable framework. To forecast with input-output models, it is necessary to make the further assumption that input coefficients remain constant over time. Because of its design, an input-output forecast is inconsistent; that is, the sum of the projections of the industries' outputs will add up to the total output. This fact does not ensure that forecasts will be correct, however, since forecasting errors may occur in projections of final output. (61:31-36)

Input-output analysis is useful for manpower planning because it predicts not only the direct but also the indirect changes in the demand for workers in different occupations and different places which are likely to result from changes in the demand for finished goods. Because the employment response of changes in demand varies widely by industry, this technique is viewed as necessary to project employment accurately. Occupational requirements are derived from employment projections in specific industries since technology is assumed fixed in the model.

An input-output model can be adapted several ways to forecast the demand for labor, depending on data availability and the length of time for which the forecast is to be made. In the short run, projections of employment and occupational requirements can be made by sector merely by predicting final demand in each sector of the economy. For periods longer than two or three years, a different forecasting technique must be used because dynamic factors operating in the economy rule out the assumption of a static world on which the model is based. Changes in the prices of inputs bring about substitutions, innovation and invention change the production technology, and product-mix changes and economies and diseconomies of scale affect the production coefficients, as do changes in the trade pattern of the region. Essentially a long run forecast attempts to take into account these dynamic forces which are constantly at work and to assess their impact on the demand for labor.

One technique for long run forecasting is to compare the input-output tables for the same economy at two different points in time. By so doing, the change in the coefficients corresponding to the change in technology can be identified and measured. Changes in the input structure in the future can be projected by observing the rate of change in the input structure in the past. This incorporates labor productivity trends into employment projects as well as changes in interindustry requirements occurring over time. By comparing employment requirements under different input-ouput tables at different times, the impact of technology on employment can also be estimated. (61:40-41)

Spellman describes another way of making a long run forecast when input-output tables are not available at different points in time. His approach uses a best-practice methodology to adapt the model to long run forecasting. The assumption is made that the input coefficients of the best-practice firms in an industry will be the average input coefficient of all the firms in the industry in ten years. These newly projected input coefficients replace the originally estimated coefficients in the input-ouput model when long-term forecasts are being made. When available data do not allow this adjustment to be made directly, national data are used to project the changes.

Spellman cautions against using the employment projections generated by the model blindly and suggests that final modifications be made to revise projections according to such exogenous forces as migration and the unevenness in

growth of some industries over the forecast period. In addition to projecting total employment in Kansas in 1980, Spellman also projects employment by occupation and the demand for labor for each occupation between now and 1980. A mail survey enabled him to identify the best-practice firms in an industry. He then identified the occupational composition of these firms and used that as a basis for his 1980 industry-wide occupational structure under the assumption that the industry average will approach the occupational composition of the best-practice firms in ten years. Where survey data were incomplete, Spellman based his projections on national occupational projections made by the Bureau of Labor Statistics. (61:45-49)

In using the input-output method to project labor demand for a region, one can either start from scratch or adapt nationally developed input-output models to the local situation. The former approach is more costly but probably more accurate, since it is not necessarily true that production relationships in any region will follow the national pattern. Spellman notes that because a regional input-output study based on primary data best describes the currently-existing regional economic structure in terms of industry mix and product mix, it should also provide the best starting point for forecasting for the region. (61:33)

Watson, who has used national input-output statistics to create a model for state manpower projections in Oregon, defends this technique on the grounds that a regional or state system should be closely tied to national data and therefore to national economic events. He notes that the impact of change on the national level can be most easily traced if comparability of data is held as a prime objective in accumulating local statistics. Watson suggests that by using state or area census data and by conducting a small survey of sample firms in each industry, national data can be refined to meet the local situation at minimal cost. (68:71-72)

Adapting National Occupational Projections to Specific Regions

A third method for forecasting the demand for labor for a specific region is to adapt national occupational projections to the local situation. A 1969 study by Catherine Palomba, forecasting the occupational requirements for Iowa in 1975, was based upon this approach. Palomba used data presented in the U.S.

Bureau of Labor Statistics' publication entitled Tomorrow's Manpower Needs as the basis for her model. She first projects state industrial employment to 1975 and then analyzes the occupational makeup of industrial employment in 1960 and 1975. She suggests that basically two approaches are possible using the 1960 and 1975 national industrial-occupational (I-O) matrices presented in Tomorrow's Manpower Needs. The first method involves constructing an area I-O matrix and superimposing on the matrix national occupation-by-industry employment trends. Each cell of the area I-O matrix is then multiplied by an individual trend value and the results are summed to obtain estimates of total occupational need in the future. The second method involves developing an overall trend factor for each occupation and using the single trend factors to project occupational requirements for the future. Although the latter approach is the easiest, Palomba used both methods in her study so that comparisons between the two approaches could be made. She found that the second method performed surprisingly well considering its relative simplicity. She concludes that the choice of method depends on the amount of time and the resources available as well as on the degree of accuracy required. In view of the fact that the largest variation between the two methods was found in the professional and craft groups, Palomba suggests that a compromise approach would be to use the first method for this group and the second method for all other groups. (47:15-16, 95-119)

Regional Econometric Models

A fourth technique used to forecast the demand for labor in a region is to develop a model which mathematically describes the economic relationships that exist. A study of the Upper Peninsula of Michigan utilizes such an econometric model. The model is based on the fact that the demand for labor is a derived demand. That is, given the state of technology and the demand for a certain quantity of goods and services, one can compute the amount of labor which will be demanded. Using statistical techniques, a mathematical equation is derived to express the relationship between labor requirements and U.S. income, regional income, and time.

To utilize this regional model, two basically different types of data are required. First, to estimate the coefficients of regional demand for labor functions on an industry by industry basis requires the use of time series data on U.S. income and regional income and time series data on regional employment on an industry by industry basis. Second, to estimate future demand for labor on an industry by industry basis requires projections of future U. S. and regional incomes. The accuracy of the model in forecasting labor demand depends broadly on two things: (1) the structural accuracy of the model, i.e., how well it describes the demand for labor functional relation, and (2) the accuracy of income projections used in the model.

Conclusions

All of the above described techniques for forecasting the demand for labor for a region involve making projections about the future. Some methods, such as the Area Skill Survey and National Occupational Projections, project labor demand for a region directly. Other methods, such as Input-Output models and regional econometric models, project levels of certain key economic variables (e.g., final product demand and income level), and use these projections to predict future labor demand by analyzing functional relationships between labor demand and the key economic variables. The accuracy of all the techniques depends on the accuracy of one's assumptions about the future.

Input-Output models and regional econometric models can do a reasonably good job of forecasting regional labor demand only to the extent that trends which have prevailed in the past prevail in the future or change very slowly. Area Skill Surveyes offer more hope in correctly anticipating future changes in trends. They are based on the "best-guess" estimates of those persons intimately involved in the production process, which can take into account many diverse factors which cannot be modeled. Models, however, do enable one to predict the demand for labor under differing sets of assumptions and enable one to see more clearly what variables critically affect the demand for labor. In this way, a model can be especially useful for policy purposes. A regional labor demand model, the results of which can be adjusted by a professional for exogenous forces, offers perhaps the best approach in regional labor demand forecasting.

The discussion above indicates the general capabilities and limitations of various forecasting techniques, but does not indicate the usefulness of any one of them to any particular planner. The reader is referred to the original documents for detailed information on how to use the techniques.

## Suggestions for Future Research

This chapter began with a look at who demands labor for what purposes. It was noted that the demand for labor is a derived demand; labor is demanded to produce other things, not as an end of itself. An area of fruitful research would be to explore more thoroughly and systematically the demand for labor from the perspective of the firm. Specifically, the factors that influence the locational decision of the firm should be investigated. Such research could facilitate the discovery of forces that encourage or discourage a firm's locating in rural areas.

The relationship between economic development efforts and labor demand has not been determined by the ORD research reviewed here. Much more work needs to be done to determine appropriate strategies for action. It would be useful to assess how much of rural economic development is induced via special efforts and how much is the result of natural forces operating in the economy.

Encouraging economic development through a growth center strategy is an interesting idea, but many questions need to be answered before implementation can be advocated. A more accurate assessment needs to be made of the costs and benefits associated with various types of public and private investments in cities of various sizes. Specific industry growth patterns need to be examined. Hansen notes in his work that currently there is no unifying theory in growth center research and that both growth center theory and practice must explicitly include human resource and manpower dimensions. (24:76-77)

Marshall indicated in his study of Rural Workers in Rural Labor Markets that even if the optimal location of a firm is not in a rural area, it does not necessarily follow that the firm would incur a loss if it located in a rural area. Persons who prefer to live in a rural area might be able to organize cooperative firms whose goals would be to provide employment while remaining solvent. The feasibility of such ventures and their possibilities for increasing the demand for and for providing options for rural labor should be investi-

gated. The political and managerial/organizational implications of cooperative firms suggest the need for an extensive research effort going well beyond basic economic analysis.

Concerning the effects of discrimination on labor demand, research is needed that will distinguish the labor market effects of direct employment discrimination (including the discrimination brought about by a firm's location decision) from the effects of past discrimination in education and training. Research is needed to determine the role of information in determing an individual's labor market experience. Are blacks not participating heavily in white collar employment opportunities because they think and act in terms of "black jobs,", because they lack education, or because they are victimized by discrimination? Balliet cites the need for additional research to gather historical information regarding the overall effects of Southern economic, social, and political institutions in order to identify viable means to alleviate conditions faced by poor and working-class Southerners of all ethnic backgrounds. He indicates there is fertile ground in the rural South for productive and multi-disciplinary research on the institutional origins and manifestations of traditionalism, apathy, and resignation.

In reviewing studies that forecast the demand for labor, the need for better data on employment and incomes in rural areas becomes clear. With the exception of the study of the Upper Peninsula of Michigan, none of the studies reviewed focused on exclusively rural areas. There is also a need for empirical work to evaluate the effectiveness of various labor demand forecasting techniques both absolutely and comparatively.

In general, many of these reports on ORD-funded research reveal little direct applicability for CETA planners. Their analysis of factors which influence the demand for labor in rural areas are primarily descriptive or they provide numerical information from isolated case studies. More rigorous work needs to be done to quantify the impact that these factors have on a regional or national basis in order to make the findings useful to a broader sample of planners. A disproportionate number of rural labor documents reviewed focus on rural labor in the South. While this is an area of considerable importance and further work needs to be done there, more research is definitely needed for other rural areas of the country.

III

# THE SUPPLY OF RURAL LABOR

## Factors Influencing Supply

### Introduction

The supply of labor (the labor force) in an area is defined as the number of persons working plus the number of persons who desire to work and are actively seeking work but don't have jobs. The size of an area's labor force depends on the size of the area's population and on the labor force participation rate. Numerous physical, economic, and cultural factors interact to affect both population size and the labor force participation rate in a region.

This section examines those physical economic, and cultural factors which ORD-sponsored research has found to affect the supply of labor in rural areas. The documents examined stress easily identified factors, such as migration rates and the level of education, which directly affect the labor supply in a region, but these factors are the product of many underlying cultural and economic forces. Where possible, the impact of these underlying forces will be identified.

### Physical Factors and Rural Labor Supply

Physical factors which affect the supply of labor in rural areas include the size of the area's population, birth rates, death rates, the age composition of the population, and the health of the population.

The size of the rural population is large relative to present rural demands for labor because rural industry in agriculture and natural resources, which were labor intensive in the past, are now very capital intensive. Many of the displaced workers from these industries have chosen to remain in rural areas, creating a large labor surplus. In addition, birth rates in rural areas have been higher than in urban areas. Marshall reports that despite consistent migration from agriculture, the rural population remained approximately the same between 1960 and 1970. (27:21) Those who have migrated in many cases have been the cream of the local labor force. They have left behind older unskilled workers for whom the problem of structural employment is particularly acute.

One study of a sample of persons living in poverty in the Midsouth found that over twenty-six percent of the total were over sixty-five and an additional twenty-five percent were between the ages of fifty-five and sixty-four. (60:73-74)

The generally low earnings of rural workers is reflected by the number of rural persons in poverty. The President's National Advisory Commission on Rural Poverty estimated that in 1965 one person in eight living in metropolitan areas was poor; in the suburbs, one in fifteen, but one out of every four rural residents was poor. The problem of poverty in rural areas seems to be more the result of underemployment rather than actual unemployment. In 1966 wage rates of farmworkers averaged less than half that of workers in manufacturing, and the seasonability of employment in rural areas increased the disadvantage further. Estimates made in the late 1950's of the "excess" supply of rural workers in agriculture range from forty to sixty percent of the labor force. (22:40-41)

Low earnings in rural areas make it difficult for local governments in rural areas to finance educational, medical, and health facilities. Lack of these facilities keeps the quality of human capital low from generation to generation and reinforces the poverty problem. Hansen, after observing large numbers of the rural poor in town for food stamps in one of the more progressive counties in Eastern Kentucky, commented that the sheer physical debilitation of many of these people in all age groups was unlike anything he had ever seen in rural areas or urban slums in the rest of the United States or in Western Europe. He said it is almost pointless to consider providing education and training for these people without allowing for concomitant programs to improve their health substantially. With such a high incidence of chronic and acute illnesses among these people, Hansen found it not surprising that so many lack the "motivation" to upgrade their education and training. (22:108)

## Migration and Rural Labor Supply

Introduction. The rate of immigration or outmigration directly affects the size of an area's population and its labor force, yet the decision whether or not to migrate is itself the product of cultural and economic forces which often conflict with each other.

In this section, case studies of geographic mobility are examined in order to understand what factors affect migration and the impact of migration on rural labor supply. A change in residence from rural to urban areas often necessitates a change in occupation as well. Studies that focus specifically on occupational mobility, as opposed to geographic mobility, are discussed in the education and training section which follows. This section has been divided into six subsections which deal with the following aspects of migration: (1) economic theory of migration, (2) outmigration from rural areas, (3) immigration to rural areas, (4) natural factors affecting migration, (5) programmed factors affecting migration, and (6) the effects of migration on worker welfare.

The Economic Theory. Conventional economic theory views the individual as a utility maximizer. Each individual constantly tries to maximize the most satisfaction. An individual's permanent income determines the total amount of goods and services he can purchase. The level of his permanent income depends on the resources the individual owns and on the prices such resources command in the marketplace. Economic theory suggests that an individual will put his resources to work where they can earn the largest risk-adjusted return. Most resources can be moved geographically independently of the owner. Labor, however, is one resource which cannot be transferred unless the resource owner decides to move. Movement of the individual in turn affects his ability to consume a particular bundle of goods and services. Thus, the rational individual may very well choose to live in a rural area even if his labor resources are valued at less there than in an urban area, if the utility he can obtain from the rural bundle of goods and services he can purchase exceeds the maximum utility he can obtain from the bundle of goods and services he could purchase as an urban resident. Since some rural goods and services may be available in urban areas only at a much higher cost or not at all (such as clear air, no congestion, open space, closeness to family), it follows that some individuals may actually get more utility with less dollars living in a rural setting. The economic model of an individual selecting a location to maximize his utility assumes that he is rational and that he has complete and accurate information on which to base his decision. In the real world, it is probably often true that people make suboptimal migration decisions because of

incomplete information. The decision to migrate also involves a cost which may make migration prohibitive to some would-be migrants. It may be that migration would lead to greater utility maximization, but a lack of assets and limited borrowing ability can stop any individual from migrating.

Other models of the migration process that are based on the neoclassical model discussed above include the income-distance mode; models including risk, uncertainty, and bias; and a push-pull model (see 69:105-144 for a detailed discussion of these models). Almost all modifications of the neoclassical migration model involve modification or elimination of certain of its assumptions in order to reduce the number of variables which need to be considered or to avoid analysis of certain aspects of human behavior for which data have not been collected. Weinstein notes that the models are similar in that they all assume marginal decision making on the part of the would-be migrant (the individual is always reviewing his locational alternatives to evaluate whether or not he should migrate). They include distance as a critical variable in the location decision, they assume constant preferences and some type of rational behavior on the part of the migrants, and they place little emphasis on noneconomic factors. (69:144-147)

Outmigration from Rural Areas. There are definite economic and psychological costs involved in the decision to migrate. The younger a person is, the more easily such costs can be recouped, since such an individual has a number of years in which he can receive the benefits of migration (i.e., better paying job, more steady work, etc.). An older person who has strong ties to a rural area is likely to find the costs of migration higher and the benefits of migration lower than a young person. Available evidence does indicate that the rate of outmigration of youths from rural areas is especially high. Nationwide, in primarily agricultural areas, youth constitute over sixty percent of all migrants.

An interview study of rural youths in the North Central states suggests that outmigration among rural young people has been under-emphasized in the literature. School officials interviewed reported that between seventy-five and ninety percent of their recent high school graduates had left the rural communities.

The study found in its sample that 77.2 percent of young people moved to a city sometime during the three-year period following the year that most of them graduated from high school. While the rate of outmigration after high school is extremely high, a number of youths can be expected to return to rural areas after completing their education and/or after becoming disillusioned with urban life. The same study found that sixty-one percent of school dropouts and twenty-nine percent of those who completed high school returned to live in the rural community. (34:5-12)

A study by Miles notes that recent research in the rural counties in the North Central states reveals that about eighty-five percent of all youths leave their home community before they are twenty-one years of age and that ninety-three percent of those who leave move to an urban setting. Beale, Banks, and Bowles estimated that in the United States in 1966, two-thirds of the rural outmigrants were under thirty years of age. (33:3)

For some, rural outmigration has been the key determinant in affecting the region's population. A study of the Upper Peninsula of Michigan reveals that the drastic decrease of the U. S. population from 1940 to 1950 was due mainly to large outmigration while, the slight population increase from 1950 to 1960 was due to a decrease of outmigration. (48:52) Specific migration patterns emerge when different regions of the U. S. are examined.

Hansen notes that outmigration from Appalachia consists of a number of major migration streams and that migration streams have changed in recent years from movement within Appalachia to movement outside the region. In general, migrants that move out of Appalachia tend to go to the larger cities nearest to their former homes. (22:119-121) Taeuber and Taeuber estimate that between 1950 and 1960 nearly 1.5 million blacks migrated from the South and, excluding Florida, 1.46 million whites migrated. The 1970 census data indicated a slowing down for whites but not for blacks in the rate of outmigration. Blacks have been observed to migrate in stages--first from a rural area to a nearby Southern city, then later to Northern cities. Those blacks who found themselves competing with poor whites in Southern cities tended to leave the area entirely. (55:6-8)

In general, studies indicate that older workers with the least education are also those most likely to remain in rural areas. This group is especially susceptible to unemployment, creating special manpower problems for rural areas. (22:371)

Inmigration to Rural Areas. While most studies have focused on the effects outmigration has had on the supply of rural labor, several studies have considered inmigration to rural areas. Inmigration to rural areas from other areas of the country can occur as a result of industrial development in the rural areas. Some have argued that most of the jobs created by rural industrial development go to persons inmigrating from outside the area. A 1970 study by the USDA Economic Research Service on the impact of job development on poverty in four developing areas, however, found that in none of the four areas did inmigrants hold more than one-third of the jobs; the average of the four areas was only 21.8 percent. Detailed data are presented below for each area:

| Study Area | Total Workers | Inmigrants Number | Inmigrants Percent |
|---|---|---|---|
| Northeast Arizona | 1,270 | 305 | 24.0 |
| Mississippi Appalachia | 2,600 | 470 | 18.1 |
| Northwest Arkansas Ozarks | 1,980 | 624 | 31.5 |
| Arkansas Delta | 879 | 71 | 8.1 |
| Total - Four Areas | 6,729 | 1,469 | 21.8 |

Source: Table 6 from (64:19)

These figures represent only the direct impact of newly established plants. The impact of jobs created indirectly (through input-output linkages) or induced (from greater income in the area) was not measured.

Despite the large and well publicized exodus of blacks from the South, net outmigration has been relatively low because of heavy white immigration to certain areas. A study by Fein, in which he analyzed the economic loss to the South of new outmigration, found that for the 1955-60 period, the annual loss was only .08 percent.

Since the study did not take into account differences in the quality of education of the immigrants and outmigrants, it is possible that this small loss was actually a gain. Fein concludes that the economy of the South has not been held back by an exodus of human capital. While the economic loss to the region as a whole seems almost negligible, the effect on rural and urban subregions is by no means equal; whites have gone to Southern cities, while blacks tend to come from rural areas of the South. The result has been large net losses of human capital from rural areas in the South.' (22:70-73)

In comparing the relative positions of local workers in rural turnaround counties to inmigrants from the region's SMSA's and from the rest of the nation, Hansen found considerable variation by region. In turnaround counties in the Tennessee Valley, Hansen found inmigrants from the rest of the U. S. had higher 1970 incomes than either migrants from the region's SMSA's or local nonmigrants. This suggests the region is importing managers and skilled labor and exporting unskilled workers. In the Ozarks, inmigrants from the region's SMSA's were found to have the highest rates of income gain and the highest incomes, while inmigrants from the rest of the U. S. had lower incomes and income increases than local nonmigrants. Hansen explains that this phenomenon is possibly a result of a large-scale return migration of marginal workers from the rest of the U. S., coupled with importation of managers and skilled workers from regional SMSA's. In all regions, Hansen found that new entrants to and dropouts from the labor force had considerably lower earnings than resident workers employed in both 1965 and 1970. (23:321-322)

Natural Factors Affecting Migration. The term "natural factors affecting migration" includes all factors that affect migration except those that are the result of specific government action. Weinstein has identified a number of "natural" factors that affect the costs of migration, as well as the associated benefits. These include: differences in the relative prices of consumption alternatives in the alternative locations, different sets of consumption alternatives in alternative locations including free goods such as climate and geography, the opportunities for social interaction with family and friends, the dollar cost and temporary loss of income that results from migration, and the psychological costs of migration, especially the psychological impact that

uncertainty has on the individual. (69:89-92)

Weinstein notes that almost all of the cost-benefit factors in the migration decision are affected by distance. The greater the distance, the greater the probability of a different distribution of prices and the greater the chances of differences in the set of consumption alternatives. Especially important is the effect that greater distance has on social costs. If a migration is short enough, old family and friends can be visited relatively easily. If the distance is great enough to force a change in interaction patterns, however, social costs rise quite quickly. Finally the relationship between distance and moving costs, such as transportation and income loss during migration, and the relationship between psychological costs and distance are both positive.

The conflict between cultural and economic forces affecting migration from Appalachia is considered by Hansen. He concludes that people are much more willing to migrate from lagging regions that previously has been acknowledged. Not only have national aspirations penetrated the mountains, but Appalachian parents desire a better future for their children and are willing to have them leave the region in search of a better life. As evidence, Hansen cites a survey on Appalachian values, beliefs and attitudes which found that metropolitan residents favored their children's remaining by a ratio greater than two-to-one, while over half the rural area respondents stated that they would wish their children to leave. Another interview sample of rural residents in Tennessee found that seventy-five percent of those interviewed felt that young people should leave. Hansen also reports on a study of outmigrants from Eastern Kentucky by Schwarzweller. The study found that, of the young men residing outside Eastern Kentucky in 1960, eighty-four percent had never moved back after initially moving away. Because traditional and family values are relatively strongly held in Eastern Kentucky, Hansen infers that problems involved in outmigration would have even less impact on persons migrating from other parts of Appalachia. Willingness to move is generally made conditional upon adequate preparation to take advantage of job opportunities in areas where they exist. Other individuals indicate they would move only if a job in their occupation were available and if moving costs were paid. (22:114-116, 371)

Interviews with rural youth in the North Central states reveal a number of reasons for migrating. (34) Large numbers of rural youth were outmigrants because of a desire to attend college or obtain vocational training. Opportunities to pursue these endeavors are usually not available in rural areas; hence the need to migrate. Other reasons commonly given for migrating were a lack of jobs, lack of entertainment, and a seeking of adventure. Although lacks of jobs was cited most commonly as the reason for leaving, the study suggests that even if jobs were available in the rural community, a large number of rural youths would still be outmigrants. Females were much more likely than males to cite lack of entertainment and seeking of adventure as reasons for moving to a city. The study found that relatively few of the many characteristics of the rural community that were measured were related to the outmigration pattern of a community's youths. The reason for this seems to be that on almost all of the variables measured, the difference among rural counties is not nearly as great as the difference between the most "urbanized rural" county and the city. "Median family income in the county was the county characteristics most closely associated with high outmigration. Low median family income (of both farm and nonfarm families) was associated with high outmigration among both college males and females, as well as among noncollege females. Median farm-family income in the county, however, was related to outmigration among noncollege females." (34:8)

In a study that analyzed factors that affect the migration patterns of southern rural youths, the following hypotheses were developed and substantiated: (1) more black youths than white youths move away from the South; (2) a larger proportion of black than of white youths migrate to urban settings; (3) more white than black youths migrate to cities within the southern regions; and (4) more black than white youths migrate to cities outside the South, and to major metropolitan areas. The study found that black rural youths are more likely than white rural youths to move to cities where relatives and friends live. The relationship between educational attainment and migration was found to be complex. For whites, educational level was not a determinant of whether a youth would leave the South, but the higher the education level, the more likely it was the the youth would migrate to the city.

For blacks there was no more tendency for the better educated than for the less well-educated to move to the city. Blacks who are school dropouts and those who go on to college are much less likely to leave the South than are those who complete high school without going on to college. It was found that among black youths, about equal numbers of male and female move from rural areas to a city (fifty percent and twenty-eight percent) within three years of the time they complete (or should have completed) high school. Among black youths, it was found that many more farm youths than nonfarm youths move to a city. Among whites there was no difference in outmigration rates. (38:35-47)

Berger has empirically estimated elasticities of migration with respect to employment, natural increase and the money wage for Pennsylvania over the period 1953-66. His elasticity estimates of one-third and one-half show that for employment and natural increase respectively, a one percent increase in employment reduces migration by one-third of a percent, but for a one percent natural increase in population, migration is increased by one-half of one percent. These results indicates that there is a definite outmigration bias, since even if employment expands at the same rate as the natural increase in the labor force, a tendency toward outmigration will persist. The elasticity of migration with respect to the money wage is .2. This indicates that a one percent increase in the money wage rate reduces migration by .2 of one percent. The empirical evidence generated by Berger showed that these income, wage, and unemployment variables have a very strong influence on migration flows in Pennsylvania. (7:151-157)

Tweeten suggests that because of externalities there is a bias favoring outmigration from rural to urban areas. He indicates that in metropolitan areas social costs of production exceed private costs because problems of pollution, social unrest, traffic snarls, and other costs of congestion do not enter the private accounts of firms. In rural areas, on the other hand, private costs often exceed social costs of production because firms frequently must pay the minimum wage or union wages (in branch plants of unionized firms) even though real worker cost is low because of underemployment. (40:44)

On the other hand, shifts in people's attitudes about the desirability of rural vs. urban living may be a factor in slowing rural outmigration in the future.

Evidence indicates that the general public's preference for urban places underwent considerable change in the 1960s and early 1970s. A 1966 Gallup poll found that thirty-six percent of city residents preferred city life, but a 1972 Gallop poll found that the number had declined to twenty percent. Overall the 1972 poll showed that only thirteen percent of the persons interviewed thought the city to be the ideal place to live. Another survey taken in 1972 found that thirty-six percent of those surveyed lived in cities, but that only eighteen percent preferred to live there. While only eighteen percent of those surveyed lived in rural areas, thirty-eight percent wished they did. (27:125)

Programmatically Planned Factors Affecting Migration. The preceding material has identified unplanned factors that influence mobility. Mobility may also be influenced by programmatically planned factors. Historically, the politica system has been biased against programs that encourage mobility. This has been true because in a representative political system people represent power. A legislator that advocates a program to move people out of his district is also advocating that his own power base be reduced. In addition, migrants tend to have incomes above the median in areas they leave and incomes below the median in areas to which they move. Consequently, the rural regions is reluctant to lose these people because they are important taxpayers, while the receiving urban area is reluctant to have them come in because they demand more in the way of public service than they contribute. (40:46)

Recently in some areas there has been a recognition that one objective of economic development efforts and manpower training should be to help people obtain the skills to help themselves wherever they choose to live. Hansen notes that early reports and hearings concerning the Appalachian Regional Develop ment Act of 1965 either ignored or decried the possiblity of outmigration of the region's residents. More recent publications suggest a more flexible position, although the Commission is not actually encouraging outmigration. (22:112-113) Other programs have been set up that promote outmigration among youth, Indians and other groups. Economically, a program of relocation can be justified if the resulting improvement in a person's overall well being exceeds the cost of the move. There are two reasons why a person may not move on his own in spite of a potential increase in well being:

(1) uncertainty about whether an improvement in well being will result from a move, and (2) inadequate capital or credit to finance a move. Relocation assistance can provide dollars to overcome financial barriers to moving and information about alternatives available to help reduce the uncertainty in moving. In advocating a nationwide comprehensive manpower program that would provide improved job information to potential employees, Bishop states that the meager evidence that is available suggests that the return received from investments in mobility assistance programs far exceeds the return from investments in education and training.[1]

Congress established an appropriation of $5,000,000 each fiscal year between 1965 and 1969 for administrative and allowance funds for an experimental labor mobility program that provided financial aid on a need basis. This program screened 40,000 eligible workers and assisted some 14,000 in actual moves. Twelve of the eighteen states affiliated with the program joined together to form the Interregional Labor Mobility Project. These twelve states, located east of the Mississippi, were linked by a compact that provided for common payments procedures, eligibility criteria, and other standards. Any involuntarily unemployed worker who could find work within his area was eligible for assistance. Methods used to locate work for these persons included contacts with employment offices in other areas, direct contact with employers, and ads in newspapers. For 1967-1968 the average age of persons receiving location assistance was between 25 and 30, and between one-third and one-half were married. Over ninety percent of those receiving assistance were males. Sixty percent moved less than 300 miles and only a fifth, mostly skilled defense workers, moved more than 500 miles. The number of relocatees in labor mobility demonstration projects for the fiscal years 1965, 1966, 1967, and 1968 were 575, 1,638, 3,536, and 7,497 respectively. Average individual allowance costs for all projects amounted to $442 in 1966-67, but in 1968 this figure was reduced to $325.

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[1] C.E. Bishop, "The Need for Improved Mobility Policy," in Joint Economic Committee, Federal Programs for the Development of Human Resources, 90th Congress, 2nd Session (Washington: Government Printing Office, 1968), p. 223.

In a study of the labor mobility projects for the year 1967, Freedman found that two months after relocation eighty-two percent of the respondents stated that they were satisfied with their relocation, eighty-seven percent were employed (although one-quarter of them had changed jobs) and about 6.5 percent were unemployed and had returned home. Her survey is somewhat clouded by the fact that no response was obtained from twenty-five percent of the relocatees. A study by the Labor Department found that twenty percent returned home within two months after the move and twenty percent of those who remained changed jobs within the first two months. The Labor Department reports an improvement in retention rates from seventy percent in 1965 projects to eighty-eight percent in 1968. An independent examination, however, found that about a third of the movers returned home within sixty days and only a third to a fifth remained with their original jobs. For those who did remain, there seems to be general agreement that the relocation costs were soon recouped. Marshall argues, however, that it is doubtful that the gains of those who remained were sufficient to offset the costs of those who returned home. The answer to this hinges on the gathering of more consistent data on relocation retention. Workers who returned home did so for a number of reasons. In some cases they misunderstood the nature of the work or wages they would receive. In other cases community factors, such as lack of suitable housing, high costs of living, climate, school system, and transportation difficulties forced the return. Finally, personal factors, such as health problems and homesickness, also caused relocatees to return home. (22:406-412) (27:121-129)

Marshall reports on an evaluation by Somers of experimental relocation projects in Michigan and Wisconsin. His work provides further information on the usefulness and limitations of labor mobility projects. The Michigan-Wisconsin projects evaluated people who moved from Northwest Wisconsin and the Upper Peninsula of Michigan to larger cities in these two states. Participants were given loans and grants for transportation and supportive services. Loans were turned into grants if the participants stayed on the new job for six months, found another job within commuting distance of his new residence, or became involuntarily unemployed. In a survey of over 1,000 movers, nonmovers, and returnees conducted six months after movers had relocated, Somers and his associates found that:

1. Both movers and returnees were younger, more likely to be male, married, and high school graduates then were nonmovers.
2. All three groups had similar earnings before the move but movers' earnings improved significantly over nonmovers' and returnees' within six months after the move.
3. MDTA training had little effect on mover earnings, but nonmovers with MDTA training earned more than nonmovers without the training.
4. A larger percentage of movers to cities of over 250,000 population returned home than did movers to cities of 25,000 to 249,000.
5. Although movers improved their incomes relative to the other two groups, they were not satisfied with their incomes and wanted to move back home. (27:124-125)

This last finding suggests that nonmonetary factors are very important in affecting the migration decision. While relocation assistance may appear to be a sound investment from a financial standpoint, it may not be when all social and psychological costs are considered.

Experience gained from the experimental labor mobility program indicates that a wide range of supportive services would be required for a successful nationwide mobility program. Services suggested include pre-location counseling, assistance in obtaining housing, orientation in the demand area, health aid, financial counseling, help in obtaining transportation, clothing, furniture, and, in some cases, help in preparing applications for employment, school enrollment, public assistance, and other public and private purposes. All projects point to the need for flexibility in the budget. The organization structure recommended by most states is a "strong central mobility office with area representatives covering a number of local offices, and in some cases, a full-time staff assigned to larger supply area offices." (22:415)

Tweeten suggest that the public cost of creating a new job for rural workers is lowest by way of subsidized migration. For 1972 he estimates that cost of creating a public employment job at $36,000 ($6,000 per year for 10 years with 40 percent productivity), the cost of creating a job by industry

location through tax write-offs at $12,000, the costs of a JOBS program at $6,000 ($3,000 per job, one-half retention rate). The cost of subsidized migration does not include any dollar payment to the local region in compensation for schooling and other local rearing costs. (40:45-46) Unlike other job programs, the subsidized migration program has the advantage of having a one-time cost rather than constant subsidization of employer or employee.

Programs undertaken to encourage outmigration of persons from rural to urban areas seem to have been reasonably successful, although there is still considerable uncertainty on the social and psychological costs of moving. Findings to indicate that the usefulness of any relocation program hinges as much on the ability of such a program to provide labor market information as on the direct financial assistance provided. These programs have not had a substantial impact on the supply of labor in rural areas because of the small number of participants.

Effects of Migration on Worker Welfare. The cases discussed above indicate that outmigration has been a significant factor in reducing the labor supply in many rural areas of the United States. The next topic which needs to be investigated is the effects of migration on rural workers who have migrated and on rural workers left behind. In a study of population turnaround in nonmetropolitan regions, Hansen compared the income increases from nonmigrants with the income increases of migrants and found that workers who migrated to other areas were still better off economically than those who did not. Surprisingly, the general conclusion of his research is that other nonmetropolitan areas provide relatively greater opportunities for migrants from turnaround counties than turnaround counties provide for migrants from other nonmetropolitan counties. (23:321-322)

A study by Hathaway and Perkins found that long distance moves are chiefly characteristic of blacks and of the young, and that there is no evidence that such moves really pay off economically. In their study, "over forty percent of the persons. . .who changed from farm to nonfarm employment actually had lower earnings after the change. . . .Thus, Hathaway and Perkins conclude that the mobility process serves to encourage, rather than to eliminate, the transfer of low income problems from agriculture to rural nonfarm areas and urban ghettos."

(22:373-374)

The effect of outmigration on those who remain behind in a rural area is uncertain. On the one hand outmigration can reduce the supply of labor, lower employment, raise wage rates, and thereby raise per capita income. Blau and Duncan find that outmigration benefits not only the migrants, but also those who remain behind in rural areas, because outmigration lessens the competitive struggle for jobs. (22:377) On the other hand, an argument can be made for the case that outmigration sets in motion an economic decline in a rural area that drains young people from the area, reduces transfer payments to the area, lowers the tax base, and the level of public services, and raises average tax rates. The drop in purchasing power in the community causes marginal firms to leave the community thereby creating further adverse multiplier effects. (22:378-379)

Whether such a downward spiral occurs depends largely on the underlying resource base of a region. In the Great Plains states, for instance, there is a viable agricultural sector, and evidence indicates that population and adjustments there have resulted in successful adaptation for both outmigrants and those left behind. Income gains in the Plains rose from an annual rate of change of 2.9 percent in the 1950s to 6.2 percent in the 1960s, giving this area the greatest acceleration of nonmetropolitan income in the nation. (40:79)

A 1972 review of the literature on rural youths in Southeastern states reports that a vast difference exists in the ability of white and black youths to obtain good employment when they migrate to an urban area. Because of discriminatory hiring practices in the South, whites have preempted most of the jobs in southern industries. In the North and West, chances have been substantially greater for black employment in other than service and laboring jobs. Census data for 1960 indicates that almost half of all employed black men in the North were production workers, craftsmen, and clerical workers, while in the South only one-third were so employed. During the decade of the 1950s, blacks accounts for the entire employment gain the semi-skilled field. Evidence indicates that nonwhites who migrate to northern cities are still less fortunate in their job search than are whites. A migrant's adjustment to urban life is greatly influenced by the length of time he had spent in the city, by the status characterisitics which he assumes (such as neighborhood, income or

occupation), by the presence of friends or relatives in the city, and by participation in community organizations. Studies have shown that rural-urban migrants participate less in formal social organizations than do urban-urban migrants or persons who have always lived in the city. Much of this difference relates to the length of time a person has had to adjust to new social organizations and to differences in socio-economic status. (55:12-15)

A study of rural youths in the North Central states suggests that young rural-to-urban migrants make an occupational adjustment which is as adequate as that of young urban-to-urban migrants. Adjustment to the city itself was found to be difficult, with twenty-five percent of the noncollege females and forty-three percent of the noncollege males returning to live in rural areas during the same three-year period in which they migrated, despite a very significant difference between job opportunities in the city and those in their home communities. The study indicates that difficult adjustment problems face rural youth whether they remain in rural areas or migrate to the cities. If they stay in rural areas they have difficulty locating jobs and experience low wages, the availability of white collar jobs, and a social environment that has caused many of their peers to leave because of lack of entertainment or the need to seek adventure. Those who do leave have better job prospects but are faced with making an adjustment to an urban environment which many of them compare unfavorably with the rural communities from which they migrated. (34:6)

Migration Conclusion. It seems unlikely that migration policies alone will solve rural manpower problems for most workers. Studies have shown that it is the unemployed worker with education and skills that benefits most from relocation. Even rural persons with an adequate educational background must make a large cultural adjustment. The costs of making this adjustment outweigh the benefits of migration for many persons. In general, the older a person is, the less likely he is to benefit from migration.

Unemployed workers who have marginal skills may only compound their problems if they move from rural areas into urban ghettos. Marshall notes that the exaggerated income gains reported for rural-urban migration result in part from a failure to control for those income-earning characteristics (age, education, sex, and so forth) more likely to be found in migrants than in rural non-

migrants, and from a failure to account for cost-of-living differentials between urban and rural areas. (27:33)

While migration policies have been successful for those trained to take advantage of employment opportunities elsewhere, they can be useful to the unskilled unemployed rural worker only if they are combined with training programs that give him the skills necessary to find employment and help him bridge the necessary social and cultural gap.

## Education and Rural Labor Supply

Introduction. The supply of labor is measured not only by the number of available workers, but also by the quality of the work force. Persons who lack basic job skills or have skills in outmoded occupations will have trouble raising themselves out of poverty even if there is a high demand for labor. Because of their low productivity, these persons will either work in low-paying marginal jobs or be unable to find work. This problem of structural unemployment is especially acute in rural areas because of the low investments which historically have been made in human capital and because of the massive decline in agricultural employment. Many studies argue that improvement of the education and training of rural persons is the single most important thing that can be done to raise rural standards of living. It is argued that education and training is necessary whether persons migrate to urban areas or jobs come to rural areas. Bachman and Southern note that investments in education are at least as productive as investments in tangible capital and represent an outstanding way in which labor in rural areas can improve its short and long-term employability. (10:27)

The following material discusses the availability and quality of various forms of education in rural areas and their implications for the rural labor markets. Programs designed to eliminate deficiencies in the education available to rural youth are examined in Chapter IV.

The Status of Rural Education. The educational level of rural adults is below that of adults in the rest of the United States. Data from the 1960 census show that the median number of years of school completed by the popula-

tion twenty-five years old and over in the United States was 11.1 in urban areas, 9.5 in rural-nonfarm areas, and 8.8 in rural-farm areas. There are dramatic differences between whites and nonwhites in rates of completion of school. Whites and nonwhites who completed eight years or less of school were thirty-four and seventy-five percent respectively for rural nonfarm areas, and fifty-two and eighty-four percent respectively for rural farm areas. The 1960 data reveal that twenty percent of urban but only nine percent of rural adults attended college. Regionally, the proportion of the population twenty-five years and over having eight years of school or less was approximately twenty-nine percent in the West, thirty-nine percent in the Northeast and North Central regional and forty-seven percent in the South. About twenty-two percent of the population twenty-five and over in the West had some college, compared to fifteen to sixteen percent in other regions. (10:114-115)

The table below presents data from the 1970 census showing the educational levels of people twenty-five years and older by race. These data show that the educational levels of rural residents lag far behind those of their urban counterparts and that blacks lag behind whites. Of particular significance is the fact that almost seventy-five percent of all blacks on farms had eight years of school or less in 1970. Data disaggregated by age category reveal that improvement in educational attainment has been made over time. (27:130)

Education Attainment of Persons
25 Years and Older by Race
(1970)

| Age and Residence | Percentage of Population with Eight Years of School or Less | | Twelve Years of School or Less | |
|---|---|---|---|---|
| | White | Black | White | Black |
| Total, 25 years and over: ..... | 26.1% | 43.0% | 57.4% | 33.7% |
| Metropolitan areas..... | 22.1 | 36.0 | 61.5 | 38.8 |
| Nonmetropolitan areas..... | 33.2 | 60.9 | 50.0 | 20.6 |
| Nonfarm..... | 31.7 | 59.1 | 51.2 | 21.6 |
| Farm..... | 43.1 | 74.5 | 42.0 | 11.9 |

| Age and Residence | Percentage of Population with Eight Years of School or Less | | Twelve Years of School or Less | |
|---|---|---|---|---|
| | White | Black | White | Black |
| 25 to 44 years:..... | 11.8% | 22.4% | 71.6% | 47.9% |
| Metropolitan Areas..... | 9.4 | 18.0 | 74.7 | 52.2 |
| Nonmetropolitan areas... | 16.5 | 36.3 | 65.9 | 34.2 |
| Nonfarm..... | 15.9 | 34.3 | 66.2 | 35.3 |
| Farm..... | 21.8 | 54.1 | 62.3 | 23.7 |
| 45 years and over:..... | 36.8 | 63.1 | 46.6 | 19.9 |
| Metropolitan areas..... | 32.1 | 55.7 | 51.2 | 24.2 |
| Nonmetropolitan areas... | 44.9 | 78.9 | 38.7 | 10.5 |
| Nonfarm..... | 43.4 | 77.9 | 40.0 | 11.3 |
| Farm..... | 53.5 | 86.4 | 31.9 | 4.6 |

Source: Bureau of the Census, U. S. Department of Commerce (27:130)

In their analysis of anglo poverty in the rural Mid-South, Smith and Rungeling document how a lack of education and skill training adversely affects the quality of an individual's labor and hence his ability to earn a living. Their findings indicate that a lack of education is probably the major cause of poverty among rural whites. In their sample of poor white families, seventy-two percent of the family heads had less than an eighth grade education and seventeen percent had never received any education. Only eight percent had completed high school. In contrast, data for the total white population of the Mid-South reveals that only twenty-six percent had less than an eighth grade education and almost forty percent had a high school education. Lack of skill training is another factor affecting poverty. In a sample of 106 poor households, Smith and Rungeling found that only thirteen persons had ever received any kind of skill training, and of these thirteen only two had received training from a government program other than high school vocational training. Most respondents had never even heard of government training. (60:73)

Lack of adequate education and training is also a well documented problem for another group of rural persons, the people of Appalachia. In 1960, 11.3 percent of Appalachian residents over twenty-five years of age had completed fewer than five years of schooling, whereas nationwide the proportion was 8.4 percent. For the same age group, about half of the Appalachian residents had not gone beyond the eighth grade, compared to less than forty percent in the nation; 11.3 percent had attended college compared to 16.5 percent nationwide. (22:102-103)

The quality of a region's human resources developed through education and training is not only determined by the number of persons in school or by the length of their education. Also important is the quality of instruction they receive. In most rural areas of the country, expenditures per pupil have been low relative to the rest of the United States. In Appalachia, for example, expenditure per pupil in 1962 was $337. Nationwide, expenditure per pupil in 1962 was $518, more than fifty percent higher. To make matters worse, expenditures per pupil are not always an accurate measure of quality of instruction. Small rural schools cannot take advantage of the economies of scale that are available to large schools. Many of the rural schools in the counties studied lacked facilities, equipment, staff, and curricula that were common to urban schools in the same part of the country, even though average expenditure per pupil was found to be higher in rural than in urban schools. The study also found that small schools tend to use available funds for improvement of physical facilities, consolidation of school districts, and improvement of school administration. These funds are seldom used to change curricula, to improve the instruction offered, or to add special and supportive services and programs. It is hard to draw good teachers into a region when salaries are low. In 1964, the average teacher's salary for Appalachia was only $4,200, $2,000 less than the national average. In addition, many rural teachers come from rural backgrounds themselves and are unable to help students prepare vocationally for urban work. In a study of rural schools in the North Central states, for example, it was found that less than half the teachers had ever taught in a city school, and half of all the rural schools had teaching staffs in which fifty percent or more of the teachers had spent most of their lives in small towns, and another twenty-five percent or more had spent most of their lives

on farms. Since the rate of outmigration of youth from rural to urban areas is so high, it is important that education and training programs for youth in rural areas be oriented somewhat toward urban job opportunities. (22:102-103; 34:13-14; 33:3; 38:66-68)

Not all rural areas of the country are deficient in their educational programs. There is considerable variation in the quality of individual programs within specific regions of the United States. A 1969 study projecting occupational requirements for Iowa in 1975 concludes that the educational attainment of the labor force should equal or surpass that required for jobs. (47:152) It should be noted that this study does not deal specifically with rural areas and is relevant only to the extent that Iowa can be classed as a rural state. Also noteworthy is that many studies that point out the need for greater investment in human capital cite statistics that reflect the overall average educational attainment of the population. These statistics tell us a great deal about schooling in the recent and distant past and about the effects of migration and population redistribution on the supply of education persons in different areas of the country, but reveal little about current efforts in education.

A national study on educational enrollments found that within each region, enrollment rates for rural youth at the compulsory school ages compared favorably with those of urban youth. At college ages, about twice as large a proportion of urban as rural residents were enrolled in 1960. (10:117) The decline in income differentials between high school and college graduates makes one question how important this difference will be in the future. Today more and more people are questioning how important traditional education is in helping persons prepare for the labor market. One study of rural youth in the Southeast found that most school related factors had no apparent effect on the occupational adjustment of noncollege youths in the study. (38:7) Another study of the South suggests that while educational levels of persons living in rural areas may be below those of persons in urban areas, they are sufficiently high to qualify rural people for many jobs. Officials in several areas mentioned that GED adult education programs had met with indifferent response because so many of the jobs held by potential participants were assembly line types in which a high school diploma was recommended but not required. (64:22)

Financing Rural Education. While children in rural areas are receiving more education than their parents did, they are still getting less than other children in the United States. Studies that have argued for increased spending on education and training in rural areas also point out that such spending cannot be expected to come from the rural areas themselves because of poverty and a lack of incentive. Conditions of poverty which come about in part because of a lack of education tend to be perpetuated because poor areas cannot afford better educational facilities. Even where limited funds have been available they have not always been used for education. Some have been squandered on attempts to attract industry. (23:39)

One of the key reasons why local governments do not give more support to education is that educational expenditures involve large internalized costs and a loss of benefits when graduates migrate. Rural governments ask why they should support the education of persons who, when educated, will leave the community and further erode the prospective tax base. The director of the Mayo Area Education School in Eastern Kentucky, for instance, indicates that practically all of its graduates have found good jobs, but many have been in industrial centers outside the region. (22:103-104) A study of the contribution of education to economic growth in the state of Michigan makes a similar observation with regard to the financing of certain aspects of higher education. Migration data analyzed in the study clearly show that the migration patterns of persons at the doctoral and first professional levels are widely distributed. Because these students constitute national as well as state resources, the study concludes that it would be logical if a significant proportion of the investments required for education were generated at the national level. (16:254) Another study of the Upper Peninsula of Michigan reveals that local educational expenditures cost the community a great deal but primarily benefited the rest of the United States. While per capita school expenditures there were much higher than the United States' average, the college educated population was proportionately smaller, owning to the high outmigration rate of education young people. (48:17)

The above described cases would undoubtedly fit many other rural areas of the country as well where outmigration is heavy. Current methods of financing schools in rural areas clearly cannot be justified on either benefit principle

or the ability to pay principle of taxation.

Education, Training, and Occupational Mobility Studies. Education and training activities undertaken by rural workers aim at occupational mobility, which is defined as the movement from one type of work to another. The term as used here refers to occupational moves that result from an improvement in the worker's skill level. This move may be prompted by a "natural" desire on the part of the individual to "get ahead", or it may be forced upon him by changes which make his existing skills obsolete. Education and training programs can be designed specifically to promote occupational mobility. These programs can sometimes assist the worker in locating a job and provide him with relocation assistance, since for many rural workers occupational mobility means geographic mobility as well. The subsections that follow review studies of rural education and training programs and occupational mobility of the following types: upgrading, farm-nonfarm, migrant-nonmigrant, and reservation-off reservation. These subsections will point out important lessons for program planning that are reported in the documents surveyed.

Upgrading: Upgrading refers to the process of training and advancing low-level workers to higher level jobs that pay more and require more advanced skills. Institutional, on-the-job, and other types of training are used. If the advance occurs within the same organization, it is known as vertical upgrading; if it occurs as a result of a worker's transferring to another firm in the industry or to another industry, it is known as horizontal upgrading. Upgrading has also been used in the broader sense to mean increasing the earning capacity of a family, either through placement of an unemployed worker without a particular skill, or by helping secondary wage earners acquire skills that allow them to pursue productive activities that increase family incomes.

In mid-1970, the Vermont Department of Employment Security ran an Experimental and Demonstration (E&D) Manpower Pilot Project to explore the feasibility and value of alternative approaches and procedures for conducting public service employment (Special Work Project (SWP)) and upgrading training for the working poor. This was done to develop guidelines and other knowledge required to facilitate and make more effective national implementation and rapid expansion of manpower projects aimed at enhancing the employability of low-income families.

The project had two major components:

- "Special Work Project", which provided public service employment for unemployed persons to perform work in the public interest at public and private nonprofit agencies. The work was designed to develop job skills which would enable participants to obtain nonsubsidized private or public employment;
- "Upgrading training", under which low-income employed persons (working poor) could develop new job skills for which they might receive increased salaries. Those portions of the program involving education and training to upgrade the labor force are reported here. Public employment aspects of the program are reviewed in Chapter IV.

The Vermont upgrading experiment envisioned the following types of upgrading training at its outset:

1. promotion of groups of workers at their work place from low-paid, dead-end jobs to jobs with greater skill or responsibility;
2. provision of skill or basic education to enable low-paid workers to compete for better jobs in their work place or industry;
3. development of individualized plans for workers currently employed at very low-paying or intermittent jobs with no opportunity for upgrading in those jobs. (29:10-11)

The Vermont experience, which lasted from December, 1970, to June, 1973, passed through two distinct stages, one conventional and one innovative. In the conventional phase, larger employers with good rates of retention and good rates of pay were sought. Given the unsteady state of the economy, the program administrators found that these employers were not willing to take risks. The experiment then turned to a much larger group of employers who ran smaller operations, frequently with ten employees or less. This proved to be a very costly process because there are no economies of scale in writing upgrading subcontracts for small employers. The result was that only fifteen of one hundred budgeted upgrading slots were filled by the end of FY-1971. Subsequently, mass mailing a brochure describing the Experimental and Demonstration (E&D) Upgrading program to 6,400 employers in the state resulted in a twenty-seven percent response and a seven percent interest level. One percent eventually signed subcontracts. This suggests that the technique of mass mailing is worthwhile for this type of program.

In its nonconventional phase, the Vermont experiment turned attention from upgrading the breadwinner to upgrading the working poor family. Although sixty percent of the working poor are from two-parent households, in this group only one spouse in five works to augment the earnings of the principal breadwinner. It was concluded that putting the spouse to work might be the best way to help the rural working poor. Cottage crafts were used to upgrade these people. Cottage crafts were selected because they fit in well with the rural background of the state, they were suited for the large and growing tourist market, the "industry" was environmentally desirable, and it fit nicely with the seasonal and part-time employment of many of the rural working poor. Cottage crafts involved such diverse crafts as spinning, weaving, table-making, silver-crafting, and commercial horticulture. A total of twenty-nine trainees were upgraded in cottage crafts or for self-employment, while 112 were trained with regular employers. The upgraded trainees were a relatively mature and settled group who needed temporary help in making a specific improvement in their lives and needed little counseling, coaching, or support services. The program was successful in delivering upgrading services to the clients once it found them, but the program had difficulty finding qualified clients. Seventy-nine percent of those who started training completed training and 108 out of 111 were promoted upon completing training. Two-thirds of the completers increased their incomes, but not dramatically, while one-third either stayed the same or lost ground. Part of the disappointment in wage gains is probably due to the economic downturn which began during the training program. The Vermont experiment suggests the following guidelines for the establishment of an upgrading program:

1. set realistic goals by neither expecting nor promising what the economy will not deliver;
2. plan the program to be flexible and anticipate the needs of the small employer;
3. use area employers and incentive payments to help attract the rural poor;
4. try mass-mailing to reach the large numbers of small and dispersed employers in rural areas;

5. effectively monitor individual upgrading subcontracts throughout the training to ensure that objectives are being met;
6. channel all trainee subsidies through the employer to help strengthen the employer-employee bond; and
7. when prospects for substantial upgrading of the principle wage earner are limited, attempt to upgrade secondary workers in the family. (29:5-7)

A second example of upgrading is incorporated in the start-up training concept. The start-up training concept, adopted in a number of states in the 1960s and 1970s, is based on the assumption that high-wage industry can be induced to hire workers in a particular place only if those workers possess the skills to give them the productivity to command higher wages. Under this concept, the employer's prospective work force is carefully selected and trained before the plant actually opens. The training is supervised by the plant's prospective supervisory personnel so that its relevancy can be assured. Although these programs are underway in a number of states, the South Carolina program is generally regarded as "the" model. Under this program South Carolina officials have sought to plan the location of industry within the state to match each industry with the characterisitics of local residents through a computerized labor market information system. The program has a network of technical training centers throughout the state and utilizes a systems approach to training. The program is supposed to have significantly accelerated the location of industry in state. (28:117)

A program related to the start-up training concept, the Concerted Services in Training and Education program, integrates economic development efforts with manpower training activities and unites numerous local agencies together in the effort. The program relies on a local county coordinator to be the catalyst to bring agencies together and utilizes much community involvement in volunteer efforts to help identify goals, collect information, and otherwise support development programs. A 1971 evaluation of this program indicated that the following lessons had been learned from this experience:

1. the county is the appropriate unit for program development purposes;

2. the interagency approach is most effective;
3. the coordinator's role of bringing together existing resources for development purposes is very important for development;
4. development requires the focusing of a variety of governmental services on particular projects; and
5. development requires major emphasis on manpower development. (27:107-108)

A study of industrial development in nonmetropolitan labor markets of the South found manpower programs in operation in all of the areas studied. However, location of most vocational centers and junior colleges in the largest towns made it difficult for rural residents to take advantage of available programs to upgrade their job skills. Most people interviewed for the study believed that on-the-job training and "start-up" type training were the most effective because they were tied to existing jobs. A few persons disagreed, claiming these programs "creamed" the local labor force. They argued that only institutional training can reach those with serious employment problems. But others criticized institutional training on the grounds that it trained too many in certain occupations. In at least one area, employees were not interested in a manpower program available only to the disadvantaged, but favored programs available to the advantaged as well. (64:26-28)

A demonstration program to upgrade farmworkers was established by the Rural Economic Institute of the Social Development Corporation. The program involves the concept of a farm job ladder in which employment and workers skills can be improved by the redesign of farm jobs so that there is a differentiation of skill levels and the possibility of training and promotion. Jobs on six California farms were analyzed in order to determine the rationale for specific practices, the methods used to hire, train, and promote workers, and the season-to-season employment pattern. The principal objective of this project was to provide structure for rural farm jobs which could lead to improved skills and advancement. (2:77)

A 1966-67 experimental and demonstration project for rural workers at the Tuskegee Institute in Alabama was designed to provide basic education, counseling, and occupational training to 125 employed or underemployed heads of

families or heads of households from rural areas of Alabama, and to secure employment for them at the conclusion of the program. The four technical areas in which skill training was offered were brickmasonry, carpentry, meat processing, and nurse's aide. Evaluation of the training program indicated the following variables were significantly related to performance in training; work interest (flexibility), intuitive movement, revised beta examination to measure intellectual development, and the Emo Questionnaires on evironmental adjustment and overall adjustment. Variables tested which were not found to be significant included: work interest (aspiration), mechanical movement, non-verbal reasoning, verbal reasoning, Rotter Incomplete Sentence Bank (to measure adjustment), and the Emo Questionnaire on internal adjustment. The evaluation found a direct relation between training success as measured by peer and teacher evaluation of personal characteristics and course performance and satisfactory job performance. Employment situations were found for all those who completed the program. This project indicates that program graduates were employable, but it does not indicate whether it was the program's training or it's placement efforts that were primarily responsible for this success. (65)

Walker's study of black employment in the nonmetropolitan Deep South found that blacks have improved their educational levels at a faster rate than have whites. Education, however, was found to be a relatively unimportant determinant in black employment gains in the South. (67:171-173)

A 1966 case study of the role of technical schools in improving the skills and earning capacity of rural manpower found that the rate of return from the education investment varied immensely between individuals and between programs. The study focused on the Winona Area Technical School (WATS) in Winona, Minnesota, a predominantly rural area. The costs of training at WATS are borne partially by the student and partially by the community, so the study attempted to estimate both the private and social rates of return on the investment. The study found wide variations in private gains within each instructional program, suggesting that an individual must place considerable weight on his own ability and situation before undergoing training. Some individuals who came into the program with high preprogram earnings actually ended up with a negative private rate of return. Other rates of return were calculated to be in excess of seventy-five percent, mostly for one of the following reasons: 1) relatively high reported

annual income, 2) small private indirect costs; and 3) direct subsidies under the Manpower Development and Training Administration (MDTA), which tended to reduce or eliminate entirely private indirect costs (but not social costs). The calculated median private rates of return on investment in education for each program offered by the WATS are above or at worst equal to the average rates of return from other private investment alternatives. Median social rates of return were lower than private gains but were sufficiently high relative to the average rates of return from other types of investments to indicate that the community could not, on average, be expected to find alternative investments that would provide the community with a higher rate of return. Since about eighty percent of the graduates remained in the Winona area upon completion of their training, local financial support for the program seems appropriate. (49:1-19)

Farm-Nonfarm Occupational Mobility: The farm population declined from 30.5 million to 10.3 million people between 1940 and 1970 and the proportion of farm residents to the total population declined from about twenty-five percent to about five percent during the same period. Occupational mobility studies that focus on this dramatic shift of employment out of farming were discussed above in the section on the effects of mechanization of agriculture on labor demand. The material was placed in the chapter on Demand because studies generally recognize that a decline in the demand for agricultural workers has been the casual factor in motivating this occupational shift. The present section considers the occupational mobility of farm families that involves supplementing farm income with nonfarm income.

Among those families who remain in agriculture, there has been an increasing reliance on nonfarm income to supplement farm income. In 1970, fifty-two percent of the total income of farm families came from nonfarm sources. Over fifty-eight percent of all farm operators reported off-farm work in 1969, up from forty-eight percent in 1964. The proportion of black farm operators who reported off-farm work rose from forty-one to fifty-four percent during this period. This change has occurred because mechanization has greatly reduced labor requirements for the farm, because small farmers have not been able to earn a sufficient income from their farm operations, and because there have been growing numbers of nonfarm employment opportunities in rural areas (see the section on rural indust-

rialization for a discussion of this last point). Marshall also notes that U. S. agricultural policies have been biased against the small farmer and consequently have caused a shift in employment from farm to nonfarm. Finally, there has been a shift in the character of farm families from those that viewed the farm exclusively as an income-generating operation to those that look on farms as a good investment opportunity where one can speculate on land values while taking advantage of certain tax benefits of farm ownership.

Despite dramatic shifts to off-farm employment, farming income is still of basic importance on many smaller farms as well as larger ones. Although the proportion of off-farm income varies inversely with income from farming, almost one-half of small farmers have no other form of employment. An additional twelve to fifteen percent worked less than one hundred days off the farm. Nearly one-third of all farmers with sales under $2,500 spent less than one hundred days off the farm. For this group, increases in either farm or nonfarm earnings would significantly improve total family incomes. (63:28-37) Because only one-fourth of all women in rural farm-husband-wife families participated in nonfarm jobs in 1970, Marshall reports the potential for increased income from nonfarm sources exists for many more rural families. (27:23-45) A 1976 Census Bureau and Agricultural Department report indicates that these women are taking nonfarm employment in increasing numbers. Of the 4.1 million persons living on farms in 1975, only fifty-two percent were primarily engaged in working the farm. Those working off the farm were mostly women.

Migrant-Nonmigrant Occupational Mobility: The declining demand for agricultural workers has also reduced the demand for migrant farmwork. The number of migratory workers remained relatively constant at around 400,000 for many years, but began to decline after 1965 and by 1970 had dropped to less than 200,000. (20:1-2) A 1971 study reports that migrants today make up only 11 percent of total hired farm labor. There are three main migrant streams. The West Coast stream begins in California and flows northward to Washington and Idaho. The Midwest stream begins in Texas and moves northward over most of the Midwest, with Michigan the major receiving state. The East Coast stream starts in Florida and moves up the coast to New England. (2:74-75) Migrants are generally regarded as one of the most disadvantaged groups in the United States. While the number of

migrants is not large in comparison with other groups, the problems they face are great. Marshall reports that in 1969 the 172,000 migratory workers who were employed more than twenty-five days at farm work averaged $1,937 for 152 days of farm and nonfarm work. In 1970 they earned $1,930 for eighty-eight days of farm work and $777 for forty-five days of nonfarm work, or $2,707. Migrants face almost all of the problems other rural workers face. In addition their work is intermittent and uncertain and they have difficulty obtaining both services and living conditions which are taken for granted by most people. The migrant has been characterized as one who is socially isolated and must always adapt to a changing environment. (27:52)

Attempts to help the migrant find a better way of life originally centered on programs providing more and better services and opportunities for steady employment within the migrant stream. The Annual Worker Plan started in 1954 was one of the earliest of these programs. It was designed to coordinate the demand for and supply of migrant labor and thereby reduce the time between jobs. More recently programs have been established to help the migrant move out of the migrant stream completely. The rationale for such a change is the decline in the demand for migrant workers and the desire on the part of migrants to settle down. A study of migrants in Michigan found that seventy-seven percent would leave farm work if they could, and only five percent wanted their children to become farm laborers. (27:53-54)

The first national program designed specifically to help migrants settle out of the migrant stream was the Migrant Experimental and Demonstration project of the Manpower Administration and State Employment Security agencies. The Migrant E&D Project provided a means to try out various working arrangements between farm representatives, other Employment Security personnel, and Manpower Administration officials in order to find the best way to provide migrants with the manpower services needed to make the transition. The project was launched in 1970 when Texas selected 750 migrant families for settling out and nine northern states agreed to accept from fifty to 150 of the families. The cornerstone of the project appeared to be the use of outreach interviewers as bridges between local employment offices and migrants. Outreach interviewers came both from the sending area and the receiving area and thus served complementary purposes. These interviewers helped migrants find housing, health facilities, and jobs and provided other assistance to migrants making the shift. In terms of the number of

families successfully settled out, the E&D project was a disappointment. Of the 750 families in the program, only 112 settled out of the migration stream. The number was small partly because E&D staff members did not try to force a family to settle out if members were reluctant or if family characteristics presented serious obstacles to successful outsettlement. Because the project was terminated after only two years, it is difficult to assess its long term impact. Undoubtedly some who settled out returned to the migrant stream; hopefully others decided to settle out as a result of the initial help given to them. (20)

An Abt Associates evaluation of the project concluded that the program had substantial difficulties, but that it had made several important contributions by: 1) increasing the communities' and agencies' awareness of migrant needs; 2) beginning the process of coordination among agencies that serve the migrants; 3) documenting the shortage of necessary services; and 4) demonstrating that project families received more services. The Abt report recommended more training and support for outreach interviewers, a change in the philosophy of the employment service towards outreach techniques, coordination among agencies who deliver the services, and encouragement to agencies to extend their "limited resources" to the migrant population. (2:75)

A second program of national scope, the National Migrant Worker Plan, was begun by the U.S. Department of Labor in 1971. The objective of this program is to help workers make the transition from migrant agriculture to stable nonagricultural employment. It was designed to settle out 5,800 migrants the first year. The program provides training and job development in the migrants' home base areas and complementary programs to settle people out of the migrant stream. Field mobility facilitation units coordinate services from the home base along the migrant stream. Manpower specialists with these field units provide job development, basic education, occupational counseling, supplementary training, and financial assistance. Persons in the migrant stream are contacted and encouraged to settle out. None of the literature reviewed reported on any evaluations of this program. (27:56)

One of the most detailed analyses of the process of migrants settling out was done by Choldin and Trout. (17) Their study examined the migration and employment of Mexican-Americans in Michigan cities. The study includes entire life-histories of each of the household heads interviewed, including all jobs

and migration moves after age sixteen. It examines the urbanization of Mexican-Americans as they leave migratory agricultural work and enter urban industrial work, focusing on the social and economic adjustments required to become integrated into an urban community. The study was built around a representative sample of settled Mexican-Americans in the state and includes a sub-study of community leaders and communities into which the newcomers were settled. Examining the reasons why Mexican-Americans came to Michigan and left the migrant stream it found that sixty percent gave job-related reasons for migration and settlement. The desire to be near kinfolk was the second most important reason for migration. Only two percent said they had left Texas because of repression and discrimination. The precipitating event for settling out was finding a job. Seventy percent decided to stay in Michigan after finding a job. Others resettled when they married native Michigan women. Migrants received most of their information about jobs, environment, and housing from friends and relatives. The media played virtually no part in providing such information. Sixty percent came to Michigan with some information about jobs, only thirty percent had heard anything about the housing situation. Of the few who had heard anything about the treatment of Mexican-Americans, ninety percent had heard treatment was good. The study found that the most successful settlers are likely to be those who are relatively young, have smaller than average families and higher than average education, have relatives or friends in the areas of settlement, and have occupational skills and preferences conforming to the demands of the local labor market.

Hansen reports on an interesting migrant settlement program in which a private company, Ling-Temco-Vought (LTV), worked with government agencies in relocating Mexican-Americans from the Rio Grande Valley to the Dallas-Fort Worth area. Most of the unemployed Mexican-Americans recruited, trained, and relocated were from the migrant labor stream. LTV solicited the workers to meet growing manpower needs which could not be satisfied through recruitment and training in the Dallas-Fort Worth area. By mid-1968, 752 trainees had entered the training program. Only sixty terminated the program during the training phases, which were conducted in the Valley. Project data indicate that the average cost per relocatee was $550, of which $386 was for relocation assistance. The average age of relocatees was twenty-six years, the average number of dependents was 2.6, and the mean number of years of schooling completed was 9.4. Relocatees were able

to raise their average hourly wage from $1.48 to $2.50 per hour as a result of the relocation and training. Of the 477 workers who had moved to jobs with LTV by mid-1968, ninety-seven percent were still on the job.

The high rate of worker retention by LTV is attributable to the comprehensive training and relocation assistance provided. One other firm that moved ninety-nine workers from the Rio Grande Valley without adequate training or assistance had only sixty-seven percent retention rate over the same time period. A significant finding of the program is that workers are not only willing to change jobs, they are willing to move great distances to do so, if there is a ready opportunity for employment. Through careful planning and assistance, the LTV program was able to remove a great deal of the uncertainty that often serves as a barrier against moving. A study by Hansen revealed that even persons who were rejected for the LTV mobility program had a pronounced willingness to move. Objections to the project were that LTV would have undertaken the program even without government subsidies (the company has denied this), that the program "creamed" the Valley labor force, that the program could have been oriented toward unemployed blacks closer to the Dallas-Fort Worth area, and that the Valley lost purchasing power as the result of the move. There was less political pressure against moving these persons out of the Valley than might be expected in other relocation programs, since these persons were drawn primarily from the migrant labor force and were not otherwise regarded as "permanent" residents. (22:303-311)

Reservation-off Reservation Occupation Mobility: In addition to promoting economic development on the reservation, the Bureau of Indian Affairs (BIA) conducts a program of employment assistance to provide opportunities for Indians who wish to move to urban communities and to provide vocational training in school or in on-the-job training. The relocation program for Indians who choose to move off the reservation includes financial help and counseling to ease the family's adjustment to the new environment in addition to training and job placement activities. The BIA relocation program is divided into two services, the Direct Employment Program and the Adult Vocational Training Program. The Direct Employment Program is designed for the person who has a marketable skill for which there is no corresponding job available in the Indian community. The person is usually placed in one of eleven cities in which the BIA has offices.

The person is provided information about jobs available, interviews are arranged, and financial help is extended in the form of travel allowances, transportation of household goods, medical examinations, and housing assistance. A community-living specialist helps acquaint the Indian with the community and its recreational and social opportunities and a housing counselor accompanies the family in looking for adequate permanent housing. Temporary housing is provided for the Indian family upon arrival. The relocated Indian is entitled to use any of the BIA services within three years after arrival but frequently is independent after six months.

The Adult Vocational Training Program includes the same services of the Direct Employment Program and, in addition, provides vocational training for persons before they find a job. The BIA contracts with established and accredited vocational training institutions to offer a program of instruction that covers 115 fields at 437 institutions in twenty-eight states. The program pays for the tuition and supplies associated with enrollment and the living costs of the individual or family. Training averages ten months but can last two years. The on-the-job training program pays fifty percent of a trainee's wages until he has completed training and is regarded as qualified to do the job. More recently the BIA has contracted with private firms to establish residential training centers to aid individuals who do not have the vocational skills, social or educational background, or motivation to compete effectively in the labor market. Private firms were chosen in order to promote a psychological transition from government support to association with a large company. Trainees are paid with company checks even though the government provides the funds.

The BIA's long experience with relocation programs for Indians has led it to the following ten generalizations concerning their success:

1. prevocational and vocational programs should be tailored to the needs of individual persons and families;
2. the programs should be entirely voluntary and available in response to participants' interests and motivation, rather than offered on a scheduled basis;
3. eventual employment near home is more desirable than long moves (half of all Bureau clients found work in their state of origin last year);

4. pre-departure counseling is an important ingredient in the ultimate success of a move;
5. counseling should be given to relocatees as long as they consider themselves to be in transition;
6. counseling and aid to help the wife to adjust to the new environment may be equally or more important than the technical proficiency of her husband in assuring a successful move;
7. group identification and the help of other Indian families are valuable assets during the transition to urban life;
8. early involvement with private industry reduces dependence on paternal organizations and adds reality to the training experience;
9. financial assistance before the first monthly paycheck arrives or for meeting emergencies increases the probability of success; and
10. respect for the Indian's own culture should not be lost either by himself or those who work with him. (22:261-262)

To what extent can families that participated in the relocation program be considered self-sufficient? A BIA study of families who had received relocation assistance in 1963 was conducted in 1966. The sample consisted of 327 individuals and family heads from a population of 5,108. Of the total number interviewed, fifty-two percent had received institutional training (IT), thirty-seven percent direct employment (DE), and eleven percent on-the-job training (OJT). The study showed that seventy percent of the group were employed during the survey period and seventeen percent were in school, military service, or unable to work due to personal or family situation. Eighty-four percent of those in the labor market were employed. Eighty-five percent of the DE recipients chose an urban center for service, as did sixty-four percent of the IT group, but a majority of the OJT group was employed locally. Sixty-one percent of the DE and OJT group and seventy-two percent of the IT group responded that they felt better off as a result of the program. Earnings increases for trainees ranged from a 358 percent increase for the IT group (many of whom were young and just out of

high school), to sixty-eight percent for the OJT group (older persons dominated the OJT group). Hansen concludes that the Employment Assistance Program has been a success in terms of both return on investment and in the satisfactions of the Indian participants. He indicates that the government's cost per job obtained by relocation is less than the government's cost per job in attempting to attract industry to the reservation and that Indians are more willing to move off the reservation than is industry to move onto the reservation. Hansen notes that at the time of this study in 1969, there were over 2,000 Indians on reservations waiting for training and relocation. He stresses that the reservations greatest need is expanded investment in human resources. (22:256-272)

An interview study of rural Navajo and Papago youth found that the three most important determinants of whether youth stay on or leave the reservation are parental advice, local unemployment, and federal training and placement programs. Indian youth tend to move to areas where relatives and friends already live, to stay on the reservation if their parents request them to, and to return to the reservation rather than live away from their families. It is generally recognized that personal preferences about living on the reservation are often overshadowed by the economic realities of being unable to earn a living there. Unemployment on the reservation therefore was cited as the most important cause for outmigration. The study also revealed that few Indians would leave on their own, without the incentive of a relocation program. This finding underscores the importance of the BIA Relocation Program in fostering reservation-off-reservation occupational mobility and demonstrates the impact of cultural factors on labor supply. (6:52-54)

In a study that analyzed the educational and cultural factors associated with the vocational success of five year graduates of a large boarding school for Navajo Indians, little relationship was found between traditional indices of success in school (GPA, achievement test scores) and vocational productivity. Stepwise multiple regression was used to analyze the importance of thirteen variables in explaining the relative vocational productivity (defined as time spent working, in school, or in the military) of the graduates. Listed in the order of importance determined by the analysis, these variables are: respect for property, knowing traditional stories (a measure of the stability of the Indian's value system), California Achievement Test score for reading compre-

hension, grade point average in vocational courses, sense of security, grade point average in English courses, emotional stability, punctuality, Iowa Test of Educational Development composite score, supervision required, having a diploma from high school or special Navajo program, overall grade point average, and having parents who own a truck or car. Sixty percent of the variability in total productive time was accounted for by the thirteen variables. (13)

A study by Weinstein on the problems of American Indians in general and the Navajos in particular indicates that for reservation-off-reservation migration to be successful, the Indians' training and education must be sufficient to allow entry into the high-wage and stable employment sector of the urban environment. Weinstein recommends that training be oriented toward the labor demand pattern in the primary market and that housing be located away from the urban core in order to prevent the new migrants from being drawn into the social relations systems of the secondary market. He notes that migration of Indians off the reservation is likely to lead to serious problems on the reservation because those who can't adapt economically in the world outside the reservation will be the ones who remain. This is likely to result in considerable dissatisfaction and social instability on the reservation. To prevent this problem, he suggests a program of adaptation assistance to Indians that would find them jobs in urban areas, upgrade their skills to make them competitive for primary market jobs, and provide psychological counseling to help them make changes in attitudes and avoid alcoholism. (69:245-249) The present BIA Relocation Program appears to have incorporated many of these ideas already. The establishment of residential training centers should promote these objectives further.

Summary. The education, training and occupational mobility studies reviewed suggest that the most successful programs are those in which the participants themselves are firmly committed to learning new skills. The documents reviewed do not discuss the program implications of this finding. The required commitment is most likely to develop when a worker realizes that he cannot earn an adequate living either because he has no skills (the case with many young workers) or because technological change has made his existing skills obsolete (the case with many older workers). Occupational mobility for a rural person often involves not only learning a new job, but also relocating and changing

lifestyles. Studies reviewed indicate that persons are willing to undertake these changes if they can be confident that such moves will improve their lives. Occupational mobility programs that reduce the uncertainty associated with change are the most likely to succeed. Programs that do this best are those that offer in addition to education and training, a wide variety of supportive services such as financial assistance to move, stipends while attending school, family counseling, and job, housing, and community location assistance. Finally, the success of any occupational mobility program is inextricably linked to the overall state of the economy. When the economy is booming and unemployment rates are low, firms are anxious to hire and promote new workers. Such an environment complements education and training programs and together they encourage rapid occupational mobility.

Other Factors Affecting the Rural Labor Supply.

Physical factors and the effects of migration and education are cited most frequently in the rural manpower literature as factors affecting the rural labor supply. The studies reviewed in this section note other economic, legal, and cultural forces that often influence these factors directly and thereby influence the supply of labor indirectly. In other instances, also reviewed here, these factors affect the supply of labor directly by influencing a person's decision whether to participate in the labor force.

The combination of welfare payments and low wages in rural areas provide a financial incentive for some persons not to work, thereby reducing the supply of labor in these areas. A study conducted as part of the Vermont Experimental and Demonstration Manpower Pilot Project concluded that regular employment secured through temporary subsidized special work training does not afford the publicly supported individual any marginal advantage over his welfare status. It found the median annual dollar value of tax-free welfare payments in Vermont was equivalent to $4,465 in taxable income per family unit when Medicaid and food stamps bonuses were included. Comparing this with the $2.26 hourly wage realized by program enrollees, male welfare clients experienced an economic disincentive to work. (44) Since welfare payments vary by state, this experience cannot be generalized to all states. Some states have welfare payments so low that even a low paying job provides some economic incentive to work.

Several studies cite transportation difficulties as a factor that adversely affects the supply of labor in rural areas. An analysis of the transportation situation of 196 Special Work Clients in the Vermont Experimental and Demonstration Pilot Project revealed that, although sincere efforts were made to combat each individual transportation problem (training-related expense monies for repairs, car pools, etc.), the severe lack of public transportation and poor conditions of private vehicles were in many cases the prime factors for clients' terminating training.

Based on their experience, the Vermont group made a number of recommendations for solving the transportation problem. It was recognized that provision of public transportation is difficult, given the sparse population densities of most rural areas. The study recommended investigating the feasibility of: 1) a network of trainee driven and maintained project vehicles; 2) utilization of the school bus network; or 3) using project funds to subsidize private transportation companies such as taxi cabs. Recommendations for providing better private transportation include: 1) the leasing of cars on a monthly or longer basis from a private vendor and assigning them to selected clients; 2) helping clients buy cars by providing low-interest loans and counsel as to the suitability of vehicles; and 3) making low cost car repair facilities available to clients. (26:1-4)

In another study Hansen stresses the need for making transportation programs an integral part of rural development programs since a lack of transportation can contribute significantly to isolation and ignorance of public services and employment opportunities. (24:232-233) Hansen suggests that, as a general practice, pricing for rural transportation services should cover the costs of operation. Agencies wishing to discount services to a specific group could be issued full price tickets which they could then provide to their clientele at whatever price they chose. In this way the economic viability of a rural transportation network can be maintained. Evidence cited by Hansen indicates that rural persons would be willing to commute comparatively long distances to work if transportation were available. The energy crisis and resulting higher energy prices have, however, reduced the economic attractiveness of commuting long distances. There can be little doubt that this will adversely affect rural areas by increasing the transportation cost for firms who would locate in these

areas and for rural commuters who need to travel long distances to work. (24:187-257)

In an evaluation of a Vermont employment project, program completers and those who dropped out of the program were asked to identify their principal barriers to obtaining employment. Of the ninety responses received, forty related to lack of labor demand, fifty related to labor supply. Of the fifty, nineteen cited personal problems (alcoholism, health/medical, lack of motivation/attitude), twenty-one cited family difficulties (marital problems, child care), and ten cited lack of experience, education, or skills. (9:191) The Vermont project found that the unemployed frequently have an inaccurate rationale for their inability to find work. They are slow to cite personal deficiencies, either because of an unwillingness to acknowledge them or an unawareness of them, even though these deficiencies are often the root of unemployment problems. A blend of perceptions of clients and program operators found the following barriers to employment: home responsibilities (includes child care) affects fifty percent; inadequate transportation, fifty percent; lack of skill or training, twenty-five percent; lack of education, thirty-three percent; health problems and physical handicaps, thirty-three percent; lack of work orientation, twenty-five percent; emotional/psychological attributes, twenty-five percent; and poor appearance/hygiene, seventeen percent. Most unemployed workers suffer multiple employability barriers. The barriers are complexly intertwined with: 1) the employer's attitudes toward potential workers' welfare history, regularity of employment and educational achievement; 2) the potential employees' basic belief systems, or world views, from which are derived attitudes toward work, employers and authoritarian figures, and social welfare; and 3) the ways in which employment counselors and coaches mediate between employers' job requirements, clients' concepts of themselves, and their own assessments of clients' capabilities and hindrances in the competition for available jobs. In a review of other studies, sixteen barriers to employment were found, six of which related to physical, educational, or migration factors. The remaining ten factors identified as barriers were attitudes and motivation, lack of child care, inadequate housing, race discrimination, sex discrimination, criminology, values, family problems, lack of transportation and pockets of poverty. (1:66-70)

A review of the literature on rural youth indicates that observable differences do exist between rural and urban residents, although there is controversy over the extent of such differences. A 1957 study undertaken by Haller and Wolff on the personality orientation of 442 farm, village, and urban boys in Lenawee County, Michigan, found that personality orientations are related to residence, even when status effects are controlled. Their study found that eighteen of the twenty-six personality dimensions studied are directly or indirectly related to residence. Farm boys were found to score highest on submissiveness, depressive anxiety, withdrawn shyness, practical concernedness, and lack of nervous tension, and lowest on intelligence and on occupational and educational aspirations. Urban boys had the highest scores in intelligence and on occupational and educational aspirations. They also scored highest on dominance, aggressiveness, hysteric unconcern, placid self-confidence, radicalism, independent self-sufficiency, and nervous tension. Farm boys' attitudes were opposite that of urban boys in their negative view of physical mobility and their belief that man has little control over events. These data suggest that rural youths may be socialized to function less effectively in an urban environment, making it more difficult for them to obtain good jobs. Rural youths' lack of interest in mobility also helps explain why there is an oversupply of labor in many rural areas. (32:47)

Other studies also indicate that rural youth have lower occupational and educational aspirations than urban youth. A 1963 study of 1,794 rural and 720 urban youths of the same age show that twenty-eight percent of rural and thirty-eight percent of urban young people plan to go into the professions. A Florida study and a Wisconsin study found that the larger the community, the higher the occupational aspirations of the boys. Studies of Michigan, Kentucky, and Iowa youth agreed that farm boys rate behind nonfarm boys in occupational aspirations. (32:50-51) Studies on the values of rural people indicate that there is a greater reluctance toward change among rural adults, that rural youth have been conditioned by their experiences to the point of almost outright rejection of the material and social aspects of the business world, and that rural residents tend to place more emphasis on the value of hard work and its association with success than urban residents do. (32:54-55; 60:78-87)

A study of the educational and cultural factors associated with the vocational success of recent graduates of a large Navajo boarding school found that the Navajo

is strongly motivated by cultural forces and that many of these forces conflict with the values of main stream society. The Navajo people strongly value cooperation, especially with relatives, and view their wealth as a family matter, not an individual matter. Work is not viewed as a good thing in itself; the Navajo believes in working only as much as he needs to. If a person is too successful he runs the risk of being called a "witch". Other Navajo values include maintenance of order at all times and in all things, distrust of non-relatives, avoidance of excesses, doing nothing in a new and dangerous situation and, if doing nothing is not enough to obtain safety, finding safety in flight. (13:7-8)

In another study of rural Navajo and Papago youth, cultural barriers were found to be the most important single factor that affects Indian employability. Cultural factors that form a barrier to employment include the difficulty of thinking of a job as something apart from the family, lack of time orientation and inability to keep time schedules, unfamiliarity with methods of applying for a job, overestimation of their own job abilities, underestimation of the demands in the world of work, and noncompetitiveness. Other factors that adversely affect the Indian's employability include communication barriers, alcoholism, and problems of social adjustment to urban life.

Finally, it must be recognized that the demand for labor in rural areas can affect the supply of labor as well. A study of industrial recruiting experience in small city job markets tested the discouraged-worker hypothesis (i.e., that a much greater labor supply is available than is apparent from unemployment data). The hypothesis is based on the "elastic concept" of labor supply, which incorporates measures of excess labor, dynamic changes in labor supply, and fluidity of job changes. For example, jobs created by the establisnment of a new plant in a rural area may be met by not only the unemployed worker, but also by those underemployed persons and discouraged workers who have dropped out of the labor force and by those migrating into an area. To test this hypothesis, four sub-hypothesis were formulated to guide analysis of case studies of the recruiting experience of newly located plants. The first sub-hypothesis was that the number of workers available for new jobs would be much larger than the number of unemployed. Evidence examined supports this hypothesis. A second hypothesis tested and found to be true was that the qualifications of the applicants would exceed the qualifi-

cations of unemployed persons. The third hypothesis tested was that the "other" employers would report a decline in the number and quality of applications received. The fourth hypothesis tested was that the new firm could recruit its labor force without greatly altering the wage structure of the area. Analysis of quarterly payrolls per employee did not indicate that substantial changes had occurred in labor costs, although a survey of employers indicated that the majority of firms had raised wages in an attempt to either attract or retain workers. While some wages did change, the study concluded that the wage structure of the area had not changed significantly. (70:230-238) This study does help one to realize the fluid nature of the supply of labor. An increase in the demand for labor can cause the labor force participation rate to rise as discouraged workers and others previously not seeking employment enter the labor force. These labor market dynamics must be kept in mind by those who would pursue policies to reduce the unemployment rate in a particular area.

Summary. High welfare payments relative to a region's wage structure, inadequate and high cost transportation, lack of child care, and low wages are all economic disincentives that lower labor force participation in rural areas. The great number and diversity of persons in areas labelled "rural" make it extremely difficult to make generalizations about the effects of cultural factors on labor force participation, although these factors are generally recognized to be important. Cultural factors help to establish an individual's perspective on what is important in life. This in turn affects attitudes about work, education, time management, savings, location of residence, and a host of other factors that influence a person's ability and/or willingness to participate in the labor force. Studies of Indians, rural youth, and rural adults reviewed here indicate that cultural forces often preclude successful adaptation of the rural population to the world of work.

## Forecasting the Supply of Labor in Rural Areas

The great majority of information produced on rural labor supply by ORD-sponsored research has served to identify and analyze factors affecting the supply of labor. This information is summarized in the pages above. Informa-

tion on techniques for forecasting labor supply, which would be of more immediate use to manpower planners, is quite limited in the documents surveyed here. Only two complete forecasting models were provided in these documents. They are briefly summarized immediately below; readers wishing more complete information are referred to the documents cited.

The Iowa Model

One of two complete models found in the studies reviewed is a labor supply model for the state of Iowa. It suffers from being a regional, as opposed to rural, model. It is relevant to this investigation only to the extent that Iowa can be regarded as rural. Separate models were developed for males and females.

> The model used to project the male labor force from 1960 to 1970 was as follows:
>
> $$O_2 = O_1 - D + NE - R \pm NM$$
>
> where $O_2$ and $O_1$ are the numbers observed in a given occupation and age cohort at the beginning and end of the decade, D is intercensal deaths among the occupational cohort, NE is intercensal new entries, R is retirements, and NM is net mobility. The magnitude of each component for each occupation and age cohort was estimated for the decade from 1950 to 1960 and used to project the occupational structure of the labor force to 1975. (47:125)

Census data were used in the above formula to make projections for the supply of labor in 1976 for ten occupational groups: professional, management, clerical, sales, craft, operative, service, labor, farm management, and farm labor.

The model used to project the labor supply of females by occupation was based on the following formula:

$$\frac{\frac{\text{Females 1960}}{\text{Females 1950}}}{\frac{\text{Males 1960}}{\text{Males 1950}}} \times \frac{\text{Males 1975}}{\text{Males 1960}} + \frac{\text{Females 1975}}{\text{Females 1960}}$$

This model assumes that the relative difference between male and female rates of growth between 1950 and 1960 would also hold during the 1960 to 1975 forecasting time period. (47:125-144) Application of this model to other rural areas hinges on the availability of data. The accuracy of the model depends of how closely future events parallel past trends. If they are similar, the model can

be expected to perform reasonably well in forecasting the supply of labor over short time intervals. For long-term forecasting, underlying events are likely to change substantially and cause the accuracy of projections to decline.

The Michigan Model

The second model was used to forecast the supply of labor in the Upper Peninsula of Michigan. The model is a generalized one which assumes a population of single year age groups on an annual basis. To obtain projections of the size and age composition of the regional labor force, the model first obtains projections of the size and age composition of the regional population. The model uses the following symbols and calculation:

$d_t^i$ Annual death rate for age group i in year t.

$i = 1,2,. . . . .,m$

$s_t^i$ Annual survival rate for age group i in year t where,

$$s_t^i = 1 - d_t^i$$

$m_t^i$ Migration rate for age group i in year t, positive immigration; negative emigration.

$r_t^i$ Annual accumulation rate for age group i in year t where,

$$r_t^i = 1 + m_t^i$$

$b_t$ Annual birth rate of population in year t

$P_t^i$ Projected number of individuals of age group i in year t for those individuals who have been born during or prior to base year for projection, where,

$$P_t^i = P_{t-n}^{i-n} \prod_{j=1}^{n} \cdot S_{t-n+j}^{i-n+j} \cdot r_{t-n+j}^{i-n+j} \quad \text{and,}$$

for those individuals who are yet unborn in the base year,

$$P_t^i = \sum_{k=0}^{n} P_{t-n+k} \cdot b_{t-n+k} \sum_{j=1}^{n-k} s_{t-n+k+j}^{j} \cdot r_{t-n+k+j}^{j}$$

$P_t$ Total population in year t where,

$$P_t = \sum_{i=1}^{m} P_t^i$$

occupational groups, the other into age groups. It is unfortunate that neither model has done more to explain the rate of net migration, since this variable is the most volatile and has been found to be the most important single determinant of population change in many rural areas. The models either project net migration on the basis of past trends or insert assumptions about what the future rate will be. A submodel that would predict the rate of net migration on the basis of factors that affect migration would greatly improve future models of rural labor supply.

## Suggestions for Future Research

This chapter has identified a number of factors which affect labor supply in rural labor markets. In general, the studies reviewed have examined one or more of these factors from a descriptive standpoint. If labor market research in this area is to be useful for policy analysis, such research will have to examine more systematically and thoroughly those factors that affect labor supply. More experimentation needs to be done to determine how public policies affect the supply of labor in rural areas. Almost none of the studies reviewed described programs that have attempted to affect the supply of labor through a programmed change in relative factor prices.

The difference in wage rates between rural and urban areas suggests that the economy is in a state of disequilibrium and that workers will migrate from rural to urban areas in order to equalize wage rates. Is this in fact the case, or are there barriers to migration (informational and financial, for example) that stop this process of equalization from occurring? Are real wage rates in urban and rural areas actually about the same if one takes into account the differences in external economies and diseconomies between rural and urban environments? Thorough research on these questions is needed before any conclusions can be drawn about the desirability of encouraging outmigration from rural areas or the form such encouragement should take.

Research results suggest that rural youth have a more difficult time adjusting to the job market than urban youth. Research and development is needed to determine what kinds of programs, if any, can be constructed to smooth the rural-ubran adjustment process. (A report on one experimental project is provided in Chapter IV.)

Research is needed to determine the critical components of an education that help produce socially and psychologically secure individuals who are productive in society.

The way cultural factors impact upon rural labor supply is very poorly understood, yet it is generally recognized that these factors are very important. Since these factors vary greatly between groups in different rural areas of the country, more research needs to be done on this topic on a regional basis.

Finally, research on and development of models explaining the dynamics of factors affecting the supply of labor in rural areas, including migration, are needed to facilitate both program design and forecasting of rural labor supply.

In general, research on these various topics aid planners of employment and training programs. The research reports surveyed for this report are helpful in identifying the factors which significantly affect the supply of labor in rural areas. They need to be supplemented with research that empirically tests policies and programs.

IV

# EMPLOYMENT AND TRAINING PROGRAMS FOR RURAL AREAS: DESIGN AND EXPERIENCE

The two previous chapters identified the factors which affect the quality and quantity of labor supply and demand in rural areas. This chapter will examine programmatic responses to those factors. In the documents surveyed for this report, in-depth information on program design, implementation and evaluation is available only for public employment programs and for Neighborhood Youth Corps and other youth programs. For this reason, this chapter is limited to consideration of these two types of programs. The limited information provided about other types of programs, including those facilitating upgrading, economic development and geographic and occupational mobility, is reported in those sections of the chapters on supply and demand that deal with the factors which each of the programs seeks to affect.

## Public Employment Programs in Rural Areas

### The Importance of Public Employment Programs to Rural Development

Public employment programs are potentially important for the solution of both the employment and the broader development problems of rural areas, according to the documents surveyed. The magnitude of their importance is indicated by the fact that "over one-fifth of labor earnings in nonmetropolitan areas is derived from employment related to the provision of governmental services." In rural areas, only agriculture produces more earnings than government employment. (53:17) Government employment is therefore basic to any attempt to alleviate rural poverty and promote rural development.

It is contended that the hard-core unemployed in rural areas do not have the skills required for most of the jobs available in rural governmental units. For this reason, public employment programs which provide skill training are identified as one of the keys for overcoming rural poverty. In the past such programs have produced successful outcomes to individual clients, but have been much too small to provide the skill development and occupational mobility required to move all of the rural poor into jobs. Some studies claim that past

programs have indicated the potential of public employment to "help provide the expertise needed...for the development of infrastructure and for raising the quality of rural life" and for developing skills that could be transferred from the public sector to private industry when private industrial development is finally encouraged by other means. It is even expected that the development of job skills will act as an inducement to private industry to locate in rural areas. (25:5-7)

Official Antipathy Toward Target Groups

The Public Employment Program (PEP), established by the Emergency Employment Act of 1971, is evaluated by some of the documents surveyed. The evidence indicates that PEP did not provide significant employment opportunities for the disadvantaged. This failure is attributed to the program's designation of Vietnam veterans as a special target group. Veterans obtained a much larger percentage of PEP positions than their percentage of total eligible clients. Other programs designed to foster employment opportunities in developing rural areas have likewise bypassed the hard-core unemployed. (25:3-4)

Failure to reach the disadvantaged must be attributed at least in part to the antipathy of government officials and general public opinion toward the economically disadvantaged. One study maintains that the work ethic is strong enough in at least some rural areas to make "outcasts of the first order" of those who are capable of working but do not earn the minimum necessary to "get by." To provide stable employment and relatively good pay to these outcasts is "to flirt with the outrage of the community." Public opinion insists that employment aid programs must first deal with those who are and have been working but remain poor before providing relief for the unemployed. (53:128-129) Given that helping the disadvantaged is likely to arouse public disapproval, it is hardly surprising that local government officials, "like private profit-making employers, have little interest in hiring the disadvantaged." (25:24)

Public antipathy to giving aid to the poor in rural areas has two important policy implications. One is that unemployed poor will not be helped in significant numbers by rural public employment programs unless state and federal guidelines mandate their inclusion as program clients. Unfortunately, the other implication is that such guidelines may be self-defeating: a program

that provides service to the nonworking but employable poor but does little or nothing for the working poor will undermine the acceptability of the concept of public service employment as an alternative to unemployment and underemployment in rural areas. (53:127-129) The studies surveyed here do not provide any guidelines for weighing these competing costs that would help in the design of rural public employment programs.

Motivation of Potential Clients

One extensive study of the attitudes of the disadvantaged and poor clients of an experimental public employment program concluded that those clients have a strong desire to work and a willingness to seek and take jobs. Evidence cited indicated that about eighty percent of the program's clients said they would rather take a low paying job than wait for a better one, that eighty-five percent would choose a hard job with high pay over an easy job with low pay, that about seventy-five percent were willing to move in order to work rather than remain where they were and be unemployed, and that eighty-five percent said that they would work at a regular job even if they had sufficient money to not need to work. (44:31-35)

This same study cited directly contradictory evidence, however; fifty percent said that they would choose welfare over work. The discrepancy is not satisfactorily explained. The authors speculate that the preference for welfare was based on the respondents' expectation that they were most likely to hold unimportant and unsatisfying jobs in the immediate future. But other responses indicated that ninety-three percent of the respondents aspired to hold jobs within three years in the "highest half" of job scales they constructed themselves. Seventy-six percent actually expected to hold such jobs within three years. The authors cite these figures as evidence that clients have motivations and expectations appropriate to successful participation in the labor force. (44:39-44) This interpretation only increases the ambiguity of the total picture presented.

There is a basic problem with all of the evidence cited above: it is based on conjecture. The actual behavior of clients in accepting and holding available jobs and remaining off welfare would be a much surer indication of motivation and attitudes than their responses to questions asking "What would you do if...?".

A small amount of experiential data is reported. It supports the author's optimistic appraisal of clients' motivations. Analysis suggests that there were actually financial disincentives to holding jobs once participation in the program ended: job earnings were lower than the previous combination of welfare earnings and program support payments. In spite of these disincentives, the clients remained on their jobs. The ability to draw conclusions from this information is seriously impaired by the finding that the clients did not perceive the relative financial loss associated with holding the jobs, although low pay was their primary complaint about their jobs. (44:51-55)

In spite of all the ambiguities suggested here, the authors conclude that "with all of the actual and potential disincentives which have been indentified in this program, one outstanding element remains--and that is the desire of welfare clients to work. Put another way, they clearly prefer employment to welfare." (44:54) It appears that conclusions with important policy implications have been drawn which are not conclusively supported by the reported evidence.

Problems Associated with the Urban Focus of National Programs

Rural officials favored PEP but argued in large numbers that the program had been designed for urban areas and was much less useful for solving rural labor market problems. These officials argued that hiring practices, wage rates, the duties of public employees, and the administrative structures of rural governments are all significantly different from those in urban areas. They felt that the design of the PEP program did not adequately take into account such differences. (53:16)

Federal legislation tends to insist that individuals employed under federally financed programs be paid the federal minimum wage. This minimum is frequently higher than the "going wage" in rural areas for the kinds of work performed by employees of public employment programs. Local officials often refuse to utilize funds available for public employment programs because doing so offers them two unpalatable alternatives: 1) raise the wages of all public employees who are not part of the program to parity with the wages of those in the program; or 2) alienate current, permanent employees by paying them less than the newly hired program clients. Legislation stipulating payment of the

local going wage rather than the federal minimum would remove one obstacle to local rural implementation of public employment programs. (53:116-117)

The urban bias of the programs is also demonstrated by the administrative cost ceilings placed on programs. These ceilings are established on a belief that new programs can be absorbed into the existing large administrative structures within urban governments. Rural governments, however, do not have extensive administrative apparatuses and must create new structures to implement new programs. Thus legislation must provide higher, more realistic administrative cost ceilings before programs such as public employment can be implemented effectively in rural areas. (53:117-119)

Federal program legislation also assumes the availability of social services which may be commonly available in urban areas but rare or nonexistent in rural areas. Singled out for special attention are the unavailability of child care facilities and public transportation to large numbers of rural poor. Both services significantly affect the employability of potential program clients. Program funds may have to be expended to provide for these and other social service needs of clients. This fact must be reflected in appropriations to rural programs if those programs are to provide employment for a large percentage of their target populations. (11:30-31)

Types of Public Employment Programs

Public employment programs have been adopted in various forms since the Great Depression. Programs instituted during the past fifteen years have not equaled the depression measures in magnitude but nevertheless have provided some evidence on the results that can be expected from such programs. Most of the recent programs have been aimed at special target groups: Operation Mainstream, Neighborhood Youth Corps, the public employment segments of the Work Incentive Program, and the small Public Service Careers Program. The Public Employment Program (PEP), superseded by Titles II and VI of CETA, followed the Depression's WPA in being aimed at the entire set of unemployed and certain segments of the underemployed labor force. The latter general purpose programs have provided different lessons than the specific target group programs. (53:107-109) The advantages and disadvantages of each are explored in a large number of the documents surveyed.

General Purpose Programs. Before the enactment of CETA, the two general purpose public service employment programs of this century were the WPA during the Great Depression and the Public Employment Program (PEP). Inconsistent data bases make comparison of the two programs difficult, but their common utilization of governmental units as employers allow the statement of some conclusions. It was found that local employing units tend to have different priorities than do state governments. They tend to concentrate program activities in construction and repair, which require low levels of skill and literacy. It was also found that they are generally able to follow their own priorities At the same time, they tend to hire the most qualified individuals available, resulting in effective underemployment of program clients. Few of the truly hard-core disadvantaged are reached by such programs. It is concluded that "any future public employment program designed in a similar manner will produce similar results." (53:109-119) None of the documents surveyed relate programs funded under CETA Titles II and VI to these generalizations.

Special Target Group Programs. Several public employment programs designed to provide employment for particular target groups have been implemented in the recent past. Some of them are discussed at length in the reports surveyed here. The details of program design will not be repeated here; important lessons will be mentioned.

The WIN program was designed to provide public employment opportunities for welfare recipients. The purpose is to end individual's reliance on welfare. The program is seen as undesirable for rural recipients discussed above in the section entitled "Official Antipathy Toward Target Groups." Provision of jobs to welfare recipients, when there are other poor people who are working and who would also like to have the jobs, is seen as potentially destructive not only to the WIN program but also to the "entire concept of public service employment as an alternative to unemployment and under-employment" in rural areas. In general, it is predicted that special target group programs aimed at the poor are not likely to succeed in rural areas. (53:127-129)

Operation Mainstream (OM) is a special target group program which has been described as successful in rural areas. The program was in fact designed primarily for rural areas and so avoids the problems associated with urban design

discussed above. The target population is older people who cannot obtain employment because of their age. The clients have not been subject to the prejudice expressed against the WIN clients. Success is primarily attributed to program design, which placed program administration in the hands of private nonprofit and other agencies committed to serving the needs of the target group. (53:121-125) Comparisons of the success of OM with that of other public employment programs must take special note of the definition of "success." Because of the age of OM clients, transition to permanent nonsubsidized employment is regarded as highly unlikely, and success is defined in terms of income maintenance. In fact, OM has not been successful in transitioning its clients. (71:32-33)

The Public Service Careers program was aimed specifically at the disadvantaged. It sought to provide sub-professional positions in human service agencies and to avoid placing clients in public works type projects. Information on the results of the program would be an important addition to findings already reported. Presumably, ORD would encourage research on the program, but one author who searched the literature for reports on such research was unable to find any. (71:31)

The documents surveyed provide a great deal of information on the Vermont Experimental and Demonstration - Special Work Project (SWP). In mid-1970, welfare and manpower reform legislation became the subject of serious consideration in the U. S. Congress. At that time, the Department of Labor contracted with the Vermont Department of Employment Security to operate experimental programs testing the manpower training aspects of the proposed legislation. One part of the tests examined alternative designs for conducting public service employment programs for the unemployed. The goal was to "develop guidelines and other knowledge required to facilitate and make more effective national implementation and rapid expansion of manpower projects aimed at enchancing the employability of heads (and other members) of low-income families." (1:viii) The Vermont ES produced a long series of documents reporting the results of the experimental SWP program and comparing it to Vermont's PEP program. These are among the few reports of empirical data on the actual creation and implementation of program alternatives. They provide the basis for most of the rest of the discussion in this chapter.

The target group for this program was defined as members of low-income families with dependent children and "barriers to employment." The lessons learned should be of immediate relevance to administrators and planners both of CETA Title II programs and of future public employment programs aimed at the poor and disadvantaged. These lessons are discussed below. That they merit attention is indicated by the relative success of SWP: "Given an hypothesized overall likelihood of slightly more than one chance in five of finding work with SWP, trainees appear to have increased their likelihood of finding work from slightly more than one chance in five to one chance in two." (1:2) Other documents provide much detailed information. (14:1-6)

Comparative Evaluation. Comparison of the outcomes of general purpose and special target group public employment programs indicates that the latter generally are better suited for providing employment for the disadvantaged in rural areas. Local officials administering general purpose programs are likely to use program funds to hire members of the community mainstream who have better job qualifications than the rural poor. Although such administration achieves the goal of reducing unemployment and increasing the general income level, the clients served are those most likely to be able to find alternative employment on their own. It is suggested that improved labor market information services be provided for these individuals and that public employment be reserved for the disadvantaged who have more serious employment handicaps. (53:123-124)

## Administration of Public Employment Programs

Staffing. Suggestions for staffing come primarily from documents describing the Vermont Special Work Project. Because the project was extensively involved in the provision of supportive services to meet client needs, the staff was structured to provide "employability teams" to work with individual clients. Each team consisted of a Counselor, a Coach, and a Manpower Specialist. This differed significantly from the staffing of the PEP program in Vermont. The latter program did not concern itself with the provisions of extensive training or supportive services to clients, and PEP field staff was limited to a Manpower Specialist in each district office.

The PEP Manpower Specialist was responsible for job development, grant writing, and the maintenance of the monthly billings from employing agencies. The SWP Manpower Specialist had the same functions, but his or her approach to job development differed. SWP staff attempted to develop jobs suitable to individual clients. PEP staff developed jobs that met specific employer needs.

The SWP Counselors and Coaches were responsible for the provision of supportive services to program clients. One document (11) provides complete job descriptions as well as descriptions of their day-to-day activities; the information will be only briefly summarized here. The Coach filled a pre-professional position, and was responsible for day-to-day contacts with clients and employers throughout an individual's enrollment in the program. S/he sought to ensure the provision of services (e.g., transportation and child care) which would enable the individual client to participate in the program. In addition, the Coach was responsible for maintaining open channels of communication between the enrollee, the employer, and his own agency, carrying out follow-up duties, and in general acting as the client's advocate.

The Counselor filled a professional position, responsible for identifying a client's present and potential qualifications to aid in selection of an occupation, helping the client identify vocational goals, and counseling clients regarding physical and psychological problems. (11:2-4)

The distinction between these job roles is clear. "The Counselor interviews an enrollee, and identifies his problems and any barriers to employment during the initial counseling interview. The Manpower Specialist develops a suitable work experience slot with an appropriate employer when the time comes. The Coach's job is to keep each enrollee on the job, and this requires that many varied tasks be performed." (11:3) The need to provide these various services in programs that serve the rural disadvantaged is made clear in the documents surveyed.

On the other had, a program such as PEP, which does not concentrate on providing services to the disadvantaged, may need only a single staff type to serve as a full-time human resource program planner and coordinator. The position should be funded six months in advance of the release of the remainder of the program's allocation so that its incumbent can produce a plan of need indicating the relative importance of filling various public service functions,

thus establishing priorities for funding positions, and can have job slots already developed when program funds become available.

Slot Development. One document (28) considers the development of job slots for program clients. Discussion focuses on the relative merits of the "pool method" vs. the "individual method." The pool method produces a contract with an employer that provides for the placement of a given number of program clients in job slots made available by the employer. Any program client can then be placed in an available slot. The individual method, on the other hand, involves an employer's agreement to hire a specific individual to fill a specific job. A combination of the two methods is always possible.

The Manpower Specialists associated with the program estimated that it takes from five to six hours to develop a pool slot and from seven to nine hours to develop an individualized slot. Analysis of unfilled slots indicated that there were three times as many unfilled pool slots as unfilled individual slots. Unfilled slots tie up funds and may eventually require the expense of deobligation. On the other hand, individualized slots are not necessary for large numbers of clients without particular employment handicaps. Thus, a "sophisticated" use of both types of job development is suggested on the basis of the Vermont experience. (28:15)

The project personnel felt that employers tended to be more satisfied with the performance of clients placed in individualized slots. They found, however, that if job supervisors were given a choice in the selection of participants in pool slots, the difference in satisfaction levels diminished. In general, employers were satisfied with the results of the program no matter which method of slot development had been used. (28:17)

Finally, it was found that the rate of placement of clients into permanent employment was nearly the same regardless of the method used for initial slot development. (28:38)

Paraprofessional Slots. The advantages of paraprofessional slots were rediscovered in the 1960's. A separate report (62) documents the use of paraprofessionals in the Vermont SWP. At the very least, paraprofessional employment is seen as stopgap employment for the unemployed, but it is recognized to have much greater potential.

The paraprofessional can upgrade the professional services provided by an agency by undertaking any number of tasks which do not require professional competence but which routinely encumber the time of professional staff. In this way, professionals are freed to concentrate their energies on their skilled tasks.

Perhaps even more significant is the possibility that paraprofessionals can perform some tasks which the professional staff may not be competent to perform. If the paraprofessionals come from the same backgrounds as the agency's clients, they can be used to establish communication links between an agency's professionals and those clients. In one particular example, "Seymour Lesh...has said that the paraprofessional 'can do what most professionals cannot do -- he can communicate, in the broadest sense of the term, with those youth deemed 'unreachable or beyond hope by the professionals." (62:3-5)

One important lesson about such slots is that they need to provide the incumbent with a career ladder. A lack of opportunity for upgrading was found to produce a slackening of effort and "a kind of burned-out quality" after about 18 months for those who became concerned about "where do we go from here?". (62:39)

The records of the Vermont program report that a substantial percentage of the paraprofessional trainees were shifted to nonsubsidized employment. The agencies which used such positions found that their effectiveness and efficiency in the delivery of social services to clients was increased. (It is interesting to note that many of these paraprofessional slots were within the manpower agencies which were administering the program.) Some of these positive results are related to the fact that the clients placed in paraprofessional positions were better educated than the average program client. This may argue for the use of such slots for the better educated among the chronically unemployed. (62:49-51)

Quality of Job Supervision. The importance of involving an employer's supervisory personnel in negotiations over slot development is stressed. It is important that job supervisors be aware of the program and its aims and that they agree with the employer's desire to participate in the program. It is further suggested that supervisory personnel be given special orientation to familiarize them with the participant's problems. (28:32)

Evaluation of supervisory personnel found that they provided generally high quality supervision in nearly all employer categories. All types of employers were adequately prepared to deal with the problems which the program's clients brought with them to the job. "Employers judged as best equipped to serve SWP clients' needs were either (or both): (1) large, having access to many resources or (2) social service oriented (concerned with handling 'people' problems)." (30:48)

Training Related Expenses. The Vermont experience suggests the usefulness of establishing a special fund for dealing with the special problems which relate to program operation in rural areas. The SWP developed such a fund: Training Related Expense (TRE) monies. Because public transportation was not available in project areas, car pools were necessary. When a car broke down, only TRE monies were available to pay for the repairs necessary to keep program participants on the job. These monies were also used to pay for emergency child care, and for clothing needed by clients before they could enter a job. "Because of the limited available resources Training Related Expenses (TRE) monies became one of the major resources utilized by the Coaches and has been one of the most important contributing factors to the success of the E&D program in the rural areas." (11:31)

A separate document (21) is available describing the rationale for the use of TRE and the lessons learned in providing them for the clients of this test program. The document enumerates the guidelines developed for their use and discusses the categories of services provided and the demands made on the available resources.

Enrichment Training. The same document (21) examines the use of Enrichment Training in SWP, which enrolled clients in job related courses. Extensive analysis of the results of various kinds of training is provided. In general, it was concluded that "such training can be a valuable aid in projects of this type, ...(but) the training was most helpful in situations where one specific skill, such as typing, could qualify a trainee for a job." (21:49-50)

Outcomes of Public Employment Programs

A great deal of the discussion above is based on the Vermont Special Work Project. In order to evaluate the usefulness to CETA administrators and planners, it is important to know whether SWP and the other programs studied were successful. Judging success requires identification of criteria of success.

The program provided temporary employment in government and nonprofit, organizations. The main goal was to move the clients into permanent, nonsubsidized employment. This goal was to be accomplished by removing personal, familial and other barriers to employment and, where necessary, by improving a client's understanding of and behavior in the world of work. On the basis of these criteria, and "considering the difficulties, SWP has had unusual success." (1:1-2) This claim is followed in the document by an extensive presentation of the evidence on which it is based.

Transition. A public employment program may have as a primary objective either income maintenance or transition of clients from program-related employment to permanent, nonsubsidized employment. It is readily apparent that the temporary provision of income through placement in a subsidized government job is much easier to achieve than finding permanent nonsubsidized employment for poor and otherwise disadvantaged clients. The transition problem is particularly acute in rural areas experiencing economic decline or stagnation, where new, nonsubsidized jobs simply may not exist. The documents surveyed indicate that the two objectives have different implications for program operation. Choosing between them is characterized as "the classic dilemma faced by many manpower programs." "Creaming" and concentration on younger clients with better job prospects occurs in programs which aim at transition; the goal of income maintenance allows concentration on clients with more barriers to employment. (53:121-122)

Operation Mainstream, for example, was evaluated as highly successful in terms of providing meaningful employment and extra income to older workers but unsuccessful in encouraging their transition to other jobs. (71:32-33) A survey of studies of PEP indicated that local officials were generally pessimistic about prospects for transition, "citing budget constraints, declining populations, and decreasing public services as impediments to absorption."

(71:34-37) PEP was seen as successful at income maintenance, the Vermont SWP at transition. (12:1-7) This would seem to indicate that the SWP may serve as a useful model to planners interested in designing programs that have transition as a goal. More than eighty percent of the clients who completed SWP training obtained permanent employment within 180 days of their training experience. (66:13-14) Jobs in higher education, social service activities, and professional, technical, and managerial slots were found to offer the best prospects for transition. Those in service (day care, janitorial, etc.) and in elementary and secondary schools did not lead to transition (the latter because of the limitations of local funding). Clerical skills proved to be the most valuable for transfer to jobs outside the agency providing the public employment experience. (30:46-50)

Retention. Success of transition is indicated not only by placement rates but also by rates of retention. Higher retention rates on initial permanent jobs were obtained if: 1) the public employment job gave the individual the same job duties as the permanent job; 2) the permanent job paid a higher wage than the public employment job; and 3) the permanent job had the same employer as the public employment job. In addition, it was found that retention rates are higher in professional, technical, and managerial occupations than in clerical, sales, and service occupations. (66:22-23)

Income. Analysis of the PEP program in rural Wisconsin found that the program significantly increased the incomes of participants while they were employed in the program. The report differentiates the benefits accruing to different demographic groups. The study's findings "suggest that effective, immediate transition to unsubsidized employment is the key to the success of the program in providing long run benefits to its participants." (71:230-232)

As indicated above, Operation Mainstream was generally perceived as an income maintenance program, capable of providing increased income to participants but unable to transition them into permanent, unsubsidized employment. Thus the income benefits accrue only for the duration of an individual's participation in the program. (71:32-33)

The Vermont SWP attempted to move welfare recipients into permanent employment. One question of vital importance to evaluating program success is whether clients were financially better off on welfare or in the jobs which resulted from participation. One document (44) explored this question at length and concluded that there were actually financial disincentives to transition from the program into nonsubsidized employment. The basic explanation was that the welfare recipients continued to receive welfare benefits while also receiving the training and other benefits while in the program. Once they left the program their real incomes declined. The study points out that there are incentives to work other than income. Although the program was a success according to other criteria, however, the presence of financial disincentives to successful program completion provides important food for thought for the administrators and planners of other programs. (44:51-54)

Skill Development. Public employment programs are recognized as potential providers of job skills needed to support the development of rural areas (25:5), but the documents surveyed indicate that past programs have not been successful in providing skill training and development. General purpose programs (WPA and PEP) have provided low skill construction and repair jobs, and little training in skills necessary for development. (53:109-119) Almost no training was provided for PEP participants in any of the states studied by the author of one study. (71:37) Operation Mainstream was also described as providing few enrollees with any formal training and as generally ineffective in its training function. (71:32-33) Reports on the SWP indicate that it provided useful skill training only in the area of clerical skills. (30:47)

Other commentary indicates that participation in skill training is perceived by potential employers as an indicator of motivation and thus aids individual program participants in securing permanent employment, whether or not the specific skills gained are particularly job relevant. (21:49-69)

Civil Service Reform. One of the goals of the PEP program was to secure civil service reform, opening up civil service jobs to program clients and the elements of the population they were drawn from. "None of the studies reported any notable success (or effort) in achieving ... civil service reform. Civil

service reform probably has little relevance to rural areas, where personnel practices are usually informal and structured selection procedures rare." (71:37) None of the other documents commented on this subject.

Countercyclical Effects. In addition to seeking the provision of income maintenance and/or permanent employment to the nation's poor and disadvantaged, public employment programs also frequently have as a goal the offsetting of the unemployment associated with a cyclical downturn in the nation's economy. One document, evaluating program performance on the basis of this criterion, found that PEP in rural Wisconsin was successful in achieving its countercyclical objectives. Participants had higher real incomes during the period of program employment than they otherwise would have had. The author also cited evidence that the benefits were greater for demographic groups which usually fare worse in the labor market: women, persons with less education, and persons not in their prime work years. (71:230-232)

Aid to the Poor. Documents other than that cited immediately above provide contradictory evidence about PEP in other localities. PEP is described as providing little hlep for, or actually bypassing, the hard-core unemployed in rural areas. In general, legislation designed to foster employment opportunities in rural areas is said to have done "little to improve the employment of the least educated, the least skilled, and the aged." (25:3-4)

Creaming is said to characterize these programs. One result is underemployment of program participants, who have capabilities suited to higher-skilled jobs. It is pointed out, however, that some creaming is necessary in order to meet employers' needs for skilled labor. (53:121-125)

## Conclusions

Over-optimism is discouraged. "All of the problems of a rural community will not be solved by means of a public employment program, and that goal should be scrapped... (O)ther changes, in fiscal mechanisms primarily, are required to achieve the broader goals of rural development." (53:125)

The ability of public employment programs to accomplish anything by themselves is questioned. However, their potential in conjunction with other

efforts is seen as very great indeed. "Public service employment can serve as the fulcrum by which manpower policy, basic education, and area redevelopment can be integrated to further employment, income, and the quality of life in rural areas." Occupational skill training associated with public employment is seen as an integral part of the creation of new jobs in the public sector and as a major inducement to private industry to locate in rural areas. Integrated policies can be expected to increase employment and income in rural areas and the skills and experience they provide can serve to improve the infrastructure and quality of rural life. (25:6-7)

Unfortunately, although the possiblity of using public employment programs to promote integration of numerous manpower efforts is discussed in these documents, they provide no administrative or other guidelines for how this integration might be achieved. Without such guidelines, utilization of public employment and other programs to end or significantly reduce rural unemployment and poverty remains a goal with little chance of realization.

## Employment and Training Programs for Rural Youth

Prior sections of this report have dealt with the factors which affect the supply of and demand for labor in rural areas and with public employment programs for all age groups. Programs designed to deal specifically with the problems of rural youth are the concern of the present section. After surveying the problems identified in the literature, we will examine guidelines for establishing programs for rural youth and evidence of the past outcomes of such programs.

### Regional Variations of Conditions

In general, the documents surveyed stress that the problems of youth vary in different parts of the United States and warn that lessons learned in one part of the country must be applied cautiously to the problems of other areas. Regional variations were found to exist in the degree of individual isolation in rural areas, the importance of racial discrimination, the availability of jobs, poverty, outmigration, school dropout rates, and the quality of education.

In spite of the enumerated differences, however, the authors conclude that the problems of youth in various areas are similar enough to justify the application of the same program guidelines in different regions. (35, 6 and 38) Guidelines have been stated broadly to make general application possible. They will be of interest as models for planners responsible for designing employment and training programs for rural youth. Part of the following discussion will examine the results of empirical tests which demonstrate that three different rural youth programs had no effect on the subsequent employment and incomes of the participants.

## The North Star Research Project

The North Star Research and Development Institute has done extensive design and testing of employment and training programs for youth in rural areas. Their project began with a survey of available literature and the opinons of youth program operators designed to identify the job-related problems faced by rural youths. Based upon hypotheses generated from the information gathered, the Institute's staff designed and implemented programs for specific rural areas to attempt to ameliorate the identified problems. Finally, employment records of youth who participated in the programs were compared with records of matched youth from other, very similar geographical areas who had not participated. Discussion in the remainder of this section will focus almost exclusively upon the reports published by the North Star Institute.

Other studies of rural youth that were surveyed and that appear in the bibliography of this report do not provide lessons useful for program design. In most, conclusions are stated too broadly to serve as guidelines for CETA prime sponsors and other practitioners.

## The Conditions and Prospects of Rural Youth

Migration. The general characteristics of rural labor supply and demand discussed above apply to youth as well as adults, but youth face problems on a larger scale. All of the children on single-family farms cannot expect to find employment on those farms; all of the children of rural nonfarm workers cannot fill the one or two jobs their parents fill. Thus, in the absence of

expanding job market opportunities that characterizes most rural areas, migration becomes a necessity for rural youth, while it may be only one alternative available to rural adults. Data indicating that a majority of rural youth migrates to urban and other areas is present above in Chapter II.

Given the scope of, and necessity for, migration to urban areas by rural youth, a major problem affecting their employability and quality of life is lack of preparation for urban life. The documents surveyed unanimously identify social adjustment to urban life as a principle problem of rural youth that should be addressed by employment and training programs designed to serve rural youth. The problem is complicated by the fact that rural residents in general do not recognize it, and further complicated by the resultant lack of any institutions in rural areas designed to prepare rural youth for urban living. (31:15-16)

The documents surveyed do not offer examples of programs that would enhance the ability of rural youth to make the transition from rural to urban living. One document reports evidence indicating that various types of pre-migration exposure to the city, including both family and school trips and even previous experience living in the city, do not significantly affect the social or occupational adjustment of young migrants. Findings did indicate that rural youths adjust to small cities more easily than to large cities, that rural girls adjust to the city more easily than rural boys, that youths from more isolated counties prefer to stay in cities more often than those from less isolated counties, that high school dropouts adjust poorly, and that adjustment depends largely on the particular reasons given for leaving the rural area. These findings prompted the conclusion that a 'trip to the city' program would not help subsequent migrants in their adjustment to urban living. (34:12)

A related document by the National Committee for Children and Youth (10) contains background papers for a conference held in 1963. Although discussing rural youth's adaptation to urban life, it examines programs designed to meet the needs of deprived urban youth because those were the only such programs then in operation. Although it does not suggest program formats which deal directly with the problems of rural migrants, it does corroborate the North Star Research project's findings on the kinds of problems which rural youth face in an urban environment. The primary problems, according to this study, are: 1) insufficient training to allow effective competition in the urban

job market, and 2) lack of social skills and values necessary for adjustment to life in an urban environment. (10:273-327)

Problems in the Rural Environment. Various studies have found that the employment problems of rural youth differ from those of urban youth. Rather than being proverty-related, the problems stem from the nature of the institutions which characterize rural communities.

The primary local institution affecting youth is the school. In general, these studies have found rural schools to be small and inadequately staffed, unable or unwilling to provide their students with the skills or experiences most important for adjustment to the modern labor market or to urban living. (31:11-14) Specific services that youth employment programs should provide as supplements to weak rural education systems vary from one community to another, but in general include occupation familiarization, counseling relevant to both urban and rural jobs, and familiarization with urban living. (38:152) (A thorough discussion of shortcomings of rural education systems is provided above in Chapter III.)

Several studies surveyed examined Neighborhood Youth Corps (NYC) programs in rural areas. They found an urban bias in program regulations which determine the eligibility of clients. The law requires NYC to provide employment and training services to disadvantaged youth. Program regulations define "disadvantaged" in relation to poverty and/or minority group membership, which is an urban perspective. In rural areas, "disadvantaged" may relate more realistically to isolation than to either poverty or minority group membership. Isolation can be cultural or geographical. It can apply to a youth who comes from the 'wrong kind of family' and thus is excluded from various opportunities and experiences. Being disadvantaged may involve low IQ, low grades in school, dropping out of school, failure to participate in school activities, or coming from a geographically isolated location with little or no public transporation. Youths who attend a rural school in which total enrollment in grades 10, 11, and 12 is less than 100 may be disadvantaged in the preparation they receive for the job market, as may students who attend schools which offer no job skill training. (38:151-152) In addition, for Spanish-surname youths who grow up in rural areas, language difficulties may be a disadvantage.

(35:106) The need to eliminate the urban bias from the program regulations in order to provide service to individuals whose disadvantage is not related to low level of family income is made clear in these documents.

Program Implications. The NYC program, described above, provides the program model tested in the studies examined here. In general, rural NYC directors reported that the program was filling a real need, but was too narrow in scope. Generally activities at the program reported on were limited to in-school programs providing part-time jobs. The directors emphasized the need to teach occupational and social skills. They describe NYC as the only institution functioning in rural areas which migh provide vocational training for youth. (21:15-16)

Supporting the suggestion to expand the program beyond the provision of part-time jobs in an in-school program is the finding that rural youths who held part-time jobs during high school "did not show any measurable beneficial effects of this experience, in terms of entry-level wages, employment scores, or social adjustment scores, when compared with their peers who had not held part-time jobs." (34:12)

Regional variations are indicated by the demonstrated lack of need for an out-of-school program in the North Central states, where school dropout rates are very low, in contrast with the importance of such a program in the Southeast, where there are a large number of dropouts at the end of the eighth grade and in each subsequent year of school. (38:151-155) This points to the more general and frequent recommendation that program regulations be flexible enough to allow individualized program design in each locality so that any given youth program will respond to the shortcomings of the institutions in its area.

The need to prepare rural youth to live in urban areas also suggests the desirability of affiliating rural NYC program with urban NYC programs in cities to which local youth tend to migrate. One specific model is labelled the "Growth Center NYC Program." The basic idea is to merge the operation of rural NYC programs with the operations of programs in "growth centers", as defined in Chapter II above. Total absorption of the rural program into a growth center NYC program is discouraged because it could result in the loss of the individualized attention which rural program directors are able to give to the needs

of participants. On the other hand, merger would allow rural youth to take advantage of activities which can be provided only by a program larger than that which can be financed for a rural area alone. One document discusses the model and its implications at length, enumerating services which could be provided, proposing a model for a summer program, eligibility criteria, and other administrative details. (34)

Another suggestion would mesh NYC resources with those of other employment and training programs. Suggested are the provisions of prevocational services and referral of youth to on-the-job and institutional training resources outside the community, and the involvement of local industry in the provision of training to program-eligible youth. (34:248)

Guidelines for Program Design

Following its extensive research on the conditions and prospects of rural youth, the North Star Research Institute developed a set of guidelines for establishing and running NYC-type programs for rural youth. These guidelines are summarized at the end of this chapter in the section entitled "Guidelines and Lessons of Immediate Use to Planners of Rural Employment and Training Programs."

Program components suggested in the North Star study include: intake, assessment, counseling (vocational/education, school, and personal/coaching), orientation, education, training, work experience, orientation to work and higher education, social skills development (preparation for urban living, financial training, leadership development, driver education), supportive services (health, transportation, day care), and opportunity development (job development, placement, follow-up). The guideline booklets, available from the Department of Labor, contain extended descriptions of each of these activities, including outlines of the content of the educational components. Specification of program content is followed by guidelines for wages and hours of participation and for administration, including job descriptions of necessary staff and specification of linkages with other relevant departments and programs. Interested planners should refer directly to the documents themselves. (33 and 36)

The general guidelines were applied to actual program design and implementation in three counties in the North Central region. One report (33) provides concrete examples of how the guidelines can be used in the development of programs to meet the needs of rural youth in specific geographic areas.

## Results of Empirical Tests of the Model

The guidelines for the formulation of youth programs presented immediately above were the result of extensive background research on the problems of rural youth and some creative thinking about how to attack those problems. Other research projects have stopped at that point. The most useful aspect of the North Star research was that it continued on to formulate youth programs for three rural counties in the North Central region. These programs were subsequently carried out and their results were evaluated. Evaluation was based on comparison of behavior in the labor market of program participants with the behavior of a scientifically matched set of rural youth from almost identical environments who had not gone through any program designed to prepare them for the job market and/or urban living. The results of the test are rather startling: participation in the experimental programs made no difference in the subsequent lives of the participants. There was no statistically significant difference between youths who had participated in the program and youths from the control group in terms of the goals of the program: 1) placement into a job; 2) placement into higher education or another training opportunity; and 3) preparation for transition to urban living. (50:1-7)

## Relevance for CETA Practitioners

Research on the employment problems of rural youth supports the contention that these youth face particularly difficult employment situations. Government programs funded by CETA or other sources are a logical response to these problems. The task remains to provide program planners and operators with guidelines on how these programs should be structured.

The reports reviewed here suggest several general conclusions, drawn from the materials cited above. First, poverty is not the only indicator of disadvantage among rural youths. Many who do not come from impoverished back-

grounds are severely disadvantaged when entering the urban labor markets to which the majority migrates. Program eligibility requirements should be written to allow participation by all those who suffer from disadvantages associated with isolation from experiences and opportunities. Second, although the general problem characterizes all rural areas, its specific form various within and between regions in any one area depending on what services are not provided to local youth by local institutions. Program planning for any given area would benefit from considering the whole range of program needs identified in these documents and shaping local programs to provide those which are not locally available. Third, the prevalence of migration to urban areas by rural youth should be a primary consideration in planning all programs for rural youth. It is important to work out cooperative programs with the sponsors of youth programs in urban areas in order to maximize the services available to prepare rural youth for urban life and employment.

Given that problems vary from one geographic area to another, "(t)he basic task, as seen by some writers, is to create conditions of equality (between urban and rural areas) -- (equality) of economic conditions, education, returns to labor, and community facilities -- that will permit persons who prefer to live in rural surroundings to do so without lowering their levels of living or depressing the life prospects of their children." (32:68) Because of the absence of such equality and the depressed life prospects of youth from rural areas, faith continues to be placed in the need for special programs for rural youth in spite of the failure of the tests mentioned above to indicate that such programs make a difference to the life prospects of the youth involved.

In fact, it can not be concluded that such programs contribute little or nothing to future employment prospects of rural youth on the basis of the empirical tests whose results are reported here. The tests indicate that these particular programs did not improve participants' prospects of employment or adjustment to urban life. It is not possible to conclude that no program could be designed that would achieve these goals. A major weakness in the North Star research reports is their failure to analyze why the experimental programs failed to produce positive outcomes.

## Lessons and Guidelines for Program Planners and Operators

Lessons and guidelines for program design and implementation are mentioned throughout the text of this chapter. In order to enhance the usefulness of this document to program planners and operators, information which merits their special attention is presented below as concisely as possible. The reader is referred back to the body of the chapter for a more complete discussion of the various points and indication of their sources.

### Public Employment Programs

1. General purpose public employment programs do not provide significant employment opportunities for the disadvantaged in rural areas. Local officials hire others to fill available slots.
2. Hiring the disadvantaged may undermine all public employment programs in rural areas.
3. State and/or federal regulations are necessary to guarantee incorporation of the disadvantaged into such programs.
4. Success in serving the disadvantaged may depend on having program operators who are committed to serving the needs of intended target groups. These include private nonprofit and other agencies rather than elected officials. This implies the necessity of special target group programs.
5. Programs designed for urban areas may not be adaptable to rural areas if they assume hiring practices, wage rates, job descriptions, and administrative structures which do not exist in rural areas.
6. Incorporation of federal minimum wage requirements in program regulations may lead local officials to refuse to implement programs.
7. Social services necessary for program operation (e.g., public transportation, child care) may not exist in rural areas. Their provision requires additional funding for rural programs.
8. Individualized services to clients are necessitated by the range of problems which affect the rural disadvantaged. Extra staffing is therefore necessary.
9. A job developer slot should be filled six months before a program begins so that job slots are available as soon as funds are available for use.

10. Both the pool method and the individual method should be used for slot development. The rate of placement into permanent employment is nearly the same for both.

11. Paraprofessionals are valuable additions to program staff and in other social services because the individuals who fill them are often better able to communicate with clients (their peers) than are professionals. Paraprofessional slots suffer from a dead-end quality, however, and need built-in upward mobility.

12. Potential work supervisors should be involved in slot development so that they are committed to participation. They need orientation to familiarize them with participants' problems.

13. Employers best equipped for public employment programs for the disadvantaged are either (or both): 1) large, with access to many resources and jobs, or 2) social service oriented (used to dealing with "people" problems).

14. Job skill training as part of public employment programs is most useful where one skill, such as typing, can qualify an individual for a job.

15. Public employment programs can easily achieve income maintenance objectives. Transition is much more difficult.

16. Retention rates of participants in their permanent, post-program jobs are as important for the evaluation of public employment programs as is transition. Retention is most likely where: 1) the public employment provided the same job duties as the permanent job; 2) the permanent job pays a higher wage than the public employment job; and 3) the permanent job has the same employer as the public employment job.

17. Clerical skills are most useful for transfers outside the public employment program employer.

18. Public employment programs automatically have countercyclical effects by providing employment that otherwise would not exist.

19. By themselves, public employment programs can not do much to end rural unemployment and poverty, but can be used as a focal point for integrating a number of programs and policies that seek this goal. Guidelines for such integration remain to be developed.

Programs for Rural Youth

1. Migration is and will continue to be necessary for a large percentage of rural youth.

2. Primary problems for rural-to-urban migrants are: a) insufficient training to allow effective competition in the urban job market; and b) lack of social skills and values necessary for adjustment to life in an urban environment.

3. A 'trip to the city' program of familiarization with urban enters will not help subsequent migrants in their adjustment to urban life.

4. The urban bias of program regulations (in the definition of "disadvantaged") is a major problem in implementing federal programs in rural areas. (It is important to note that this problem was also discussed at length in the documents dealing with public employment programs.)

5. Part-time jobs as part of an in-school program have no measurable impact on the subsequent employment experience of program participants.

6. Programs need to teach both occupational and social skills.

7. The need for an out-of-school program is regional and depends on school dropout rates.

8. Meshing a rural program with a program in a growth center will provide added services for rural youth. Complete integration should be avoided in order to maintain individualized attention necessary for rural programs.

9. Meshing with other employment and training programs, including those providing on-the-job institutional training, should be pursued.

North Star's Guidelines for Rural Youth Programs

The program guidelines developed by the North Star project and discussed in numerous of the documents may be summarized as follows:

1. "Disadvantaged" should be redefined to give equal weight to low income, geographical isolation, and social isolation as criteria for entry into rural youth projects.

2. In addition to providing "equal opportunities" for rural youth, rural program objectives should include aiding the transition from rural to urban living of youth who choose to make that transition. Subgoals should include

familiarization with urban living; occupational familiarization and counseling; and training in how to apply for a job and how to find the best jobs, the best housing, and the most enjoyable social life in the city.

3. While local initiative and supervision should be maintained wherever possible, outside resources should be utilized where local resources are not adequate for meeting the objectives for the program.

4. Part-time jobs should be de-emphasized in rural programs and used only as a vehicle for achieving the subgoals listed in 2. above or to provide necessary income or training in a skill that is directly transferrable to the labor market.

5. Any rural youth project must be flexible enough to allow an individualized approach to each individual's problems.

6. Programs should seek to supplement weak rural educational systems and should not rely on rural schools to provide any essential services without convincing evidence that individual schools can deliver those services.

7. Vocational counseling appropriate for the young rural-to-urban migrant should be coupled with a functioning system for job placement.

8. Administration of rural youth programs should be structured to include cooperation with youth programs in adjacent urban growth centers. (35:251-253)

## Suggestions for Future Research

The ORD-funded research reviewed for this document is impressive in its scope. Much of it is impressive in its quality. The basic weakness of the total package is its lack of concentration on answering questions and providing guidelines for employment and training program planners, managers and operators. The previous two chapters discussed the need for research that will lead to the development of models which planners can use to forecast labor supply and demand in rural areas. This chapter has discussed two viable attempts to produce program guidelines through identification and analysis of labor market problems, development of program models on the basis of that analysis, and analysis of the outcomes through application of the models for program design and implementation. The failure of the particular youth program to achieve its objectives indicates the need for a substantial increase in the number of such projects.

It seems clear that isolated projects that analyze some aspect of a single labor market offer far fewer prospects of producing program guidelines than do comprehensive projects similar to that undertaken by the North Star Research and Development Institute and the Vermont Department of Employment Security. Carefully organized research projects involving program design, implementation, evaluation, and dissemination of results offer the best prospect of identifying and thoroughly analyzing labor market problems and possible programmatic solutions. After studying all of the documents listed in the bibliography of this report, it is the opinion of the reviewers that ORD would best serve the needs of its primary market by funding more comprehensive programs involving empirical testing of program models.

Suggestions of a more specific nature, related to the subject matter of this chapter, include an analysis of the guidelines for youth programs developed by the North Star Institute. These should be analyzed by rural program operators and others with first-hand knowledge of the problems associated with programming for rural youth. The purpose of the analysis would be to determine why the experimental programs made no significant difference in the lives of participants. Identification of problems with the original program design might suggest alternative program designs which in turn would require empirical testing. Herein is generated an argument for a substantial financial commitment to such a project. For without it, the investment in the earlier project will have produced little of programmatic value.

Perhaps the most basic question, not addressed in any of the documents reviewed here but a good candidate for future research, is the identification of the optimal use of available resources. It would make sense to study whether long term success can be significantly enhanced by putting no funds at all into rural youth or public employment programs and investing all available resources in projects promoting the economic development of rural areas. Such research might be based on the hypothesis that building and strengthening local institutions is a prerequisite to developing the ability to provide training and employment on a permanent, indigenous basis.

The suggestion that public employment programs can serve as a fulcum for coordinating a number of programs and policies targeted toward the elimination of rural unemployment and poverty suggests the need for research leading to

the development and testing of guidelines for the structuring of such coordination. Given the political and economic parameters involved, a substantial research effort is implied.

As suggested in Chapter I, research is needed on the mechanisms of regional development and the place of rural areas within such development. Further, the need is apparent for research that will develop guidelines for and empirically test programs which integrate rural employment and training programs into comprehensive regional development efforts.

# CHAPTER V
# CONCLUSION

ORD has funded a large number and a wide variety of R&D projects having a "rural" emphasis. In the course of this project, seventy-one R&D reports covering more than 11,000 pages and representing work completed over the years 1963-75 were reviewed. As indicated earlier, these particular documents were identified in an earlier ORD project by Gordon Gayer has having, in one way or another, a rural focus.

The objectives for this particular project as outlined prior to funding were mutliple. They included the:

- provision of a condensation of the rural R&D experience in a form particularly useful by CETA manpower planners;
- identification of labor market analysis techniques, of the implication of labor market analysis, and of programmatic initiatives that have proven successful in rural areas, which manpower planners and program operators can draw upon as the current decentralized employment and training program delivery system evolves;
- identification of data gaps or unfilled research needs that ORD can consider in establishing research priorities;
- identification of broad policy issues emergent from the study of the labor market problems in rural areas.

As the pieces of the project were pulled together, it became clear that the actual accomplishment of the first two objectives would be more limited than initially desired. Data analyzed and information provided were not directly applicable to the daily problems of current CETA planners and administrators.

The latter point is emphasized by the large proportion of this document dealing with the topics of labor demand and supply (Chapters II and III). In terms of page allocation, more than seventy percent of this document deals with those subject areas - a division which reflects the emphasis in the ORD projects reviewed. This is not a criticism of ORD priorities. To the contrary, the collection of documents reviewed represent priorities in the labor market and employment and training fields which were established prior to the decentralization provided by CETA. This being the case, it would have been surprising

to observe a strong programmatic, service delivery, and applied or planning orientation in the R&D collection reviewed.

It has been the format of this report to provide conclusions or suggestions for future research at the end of each substantive section. It would not be useful to repeat those observations and recommendations in their entirety. A few points are worth summarizing here, however. These include:

1) What constitutes "rural" and what leads to the use of this term in either labor market or programmatic analysis is not entirely clear. The term has multiple definitions. Under any definition, however, there are labor market problems in "rural" America, and although they are not unique, the origins of the problems in rural areas are different than those in the urban and suburban areas. This has required exploring for innovative or population specific programmatic responses to deal with those problems.

2) The literature dealing with the supply and/or demand characteristics of rural labor markets validates what economic theory would predict a priori. Namely, and other things equal, an area suffering economic stagnation or a low growth rate, and characterized by low wage industries, is also characterized by high unemployment rates and low per capita income. The R&D literature has discussed at some length the role of economic development in the employment and poverty problems of rural America. The literature has not clearly documented the causes of varying rates of economic development in the rural areas, nor has previous research clearly established whether it is effective to encourage economic development via special efforts as a means of combating geographically specific labor market problems. Much more work needs to be done here.

3) Another significant finding of the literature relates to the behavior of rural labor force members. It is possible to observe and document the fact that many rural labor force members do, in fact, behave differently than their urban counterparts in terms of their degree of attachment to the labor force, mobility, method of job seeking, etc. However, the mere documentation of urban-rural differences in labor market behavior does not explain the reason for the differences. Many questions remain to be answered including how many of the differences can be accounted for by culture, by discrimination and by education?

4) One conclusion which recurs in many studies relates the success of education and/or training programs to the motivation of the client. This finding is not profound. Its validity is commonly accepted by all CETA program operators. However, one related point that emerged from the literature and which does have importance for CETA related personnel is the proposition that most programs do best that offer a wide variety of supportive services in addition to basic education and/or training. However, given the substantial commitment to work experience and institutional training and only minor emphasis on related supportive service programs under CETA, the lesson is worth repeating.

5) The literature produced several lessons for CETA operators desiring to innovate in developing their Title I programs. For example, the Vermont Experimental and Demonstration Manpower Pilot Project demonstrated that to encourage people to work, it is necessary that the earned wage rate and related after-tax income available from work appear stable and reasonably higher than the combination of welfare, medicaid, and food stamp income available without work. In areas where the wage structure is low, it is possible for welfare tradeoffs to appear favorable. This should lead CETA program planners to develop imaginative wage subsidies in order to build in adequate incentive. Also of significance to CETA planners is the importance of transportation in either fostering rural area economic development or encouraging labor market mobility among rural labor force members. CETA programs cannot directly solve area transportation problems. However, knowing that transporation is an important variable in the solution of rural area labor market problems should lead the CETA planners to examine innovative transportation programs and/or become politically involved in the broad area of transportation development.

6) Much of the literature reviewed dealt with the labor problems of rural area youth. It has been documented that rural area youth compare favorably with urban youth in educational attainment. They have different attitudes toward job search and different sets of skills or employability characteristics. However, the employment and employability problems of youth stand out as national problems; the problems of rural youth cannot be viewed as unique. In the opinion of the authors the literature review suggests that youth should be treated as a special segment of the labor force. A preliminary research effort is required to

establish and differentiate adult and youth motivation in job search activities. This should be followed by the designing of demonstration projects to test models for dealing with special youth employability problems.

7) This document reflects the content of the documents reviewed. It is apparent that much more attention has been focused on rural youth than on older workers in rural areas. That part of the literature describing factors which affect labor supply and demand apply to all age groups. But that part which deals with special target group programs reports on youth programs only. An R&D focus on older workers may be warranted. Regarding setting new R&D priorities, and going beyond the suggestions outlined in the text above, two suggestions seem in order. First, comprehensive demonstration projects such as those undertaken by North Star Research and Development Institute and the Vermont Department of Employment Security stand out as offering the best prospects of identifying and analyzing labor market problems and possible programmatic solution. Many of the projects reviewed were interesting and raised serious labor market or programmatic questions; but being limited in scope, they may have raised more questions than they answered. The demonstration project concept provides for both research and experimentation, the combination of which can lead to innovative and workable programmatic developments. Second, the literature reviewed appeared to be more oriented toward the research community than toward the program operators. It would seem that, in this day of decentralization, ORD should mandate that all R&D efforts deal in the most applicable way with the applied, program, or operational implications of the phenomenon they are studying. Clearly, it is a short extension of any of the labor market analysis projects reviewed to assess the programmatic, service delivery, or guideline development of the particular research. Equally important, it would seem reasonable that ORD mandate that all such applied or programmatic discussions be in language which communicates with, and in formats usable by, manpower practitioners.

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